The Surgical peculiarities of the American Negro : a statistical inquiry based upon the records of the Charity Hospital of New Orleans, La., decennium 1884-'94 / by Rudolph Matas.

Contributors

Matas, Rudolph, 1860-1957.

Publication/Creation

[Philadelphia] : [publisher not identified], [1896]

Persistent URL

https://wellcomecollection.org/works/renjpb58

License and attribution

This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.

Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
https://wellcomecollection.org

13

K
54610

123 F

22102116349

BRITISH MEDICAL
Library
ASSOCIATION

THE

SURGICAL PECULIARITIES

OF THE

AMERICAN NEGRO.

A STATISTICAL INQUIRY

BASED UPON THE

RECORDS OF THE CHARITY HOSPITAL OF NEW ORLEANS, LA.,

DECENNIUM 1884-'94.

BY

RUDOLPH MATAS, M.D.,

PROFESSOR OF SURGERY, MEDICAL DEPARTMENT, TULANE UNIVERSITY OF LOUISIANA; VISITING SURGEON TO THE CHARITY HOSPITAL OF NEW ORLEANS; FELLOW OF THE AMERICAN SURGICAL ASSOCIATION, ETC.

REPRINTED FROM THE

TRANSACTIONS OF THE AMERICAN SURGICAL ASSOCIATION,

VOL. XIV., 1896.

WELLCOME INSTITUTE
LIBRARY

Coll.	welMOmec
Call No.	
	WO
	K54610

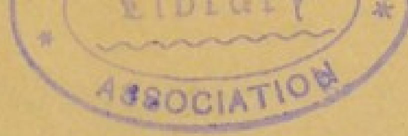
CONTENTS.

PAGE

Historical and other preliminary considerations 3
The influence of crossing—the mulatto 9
The environment 11
Anatomical characteristics of the negro 12
Physiological characteristics 24
Pathological peculiarities ; generalizations 28
Surgical peculiarities defined 30
The Charity Hospital of New Orleans 30
The pyogenic infections 34
Smallpox and vaccinia 37
The streptococcal infections 38
The septic infections 40
Tuberculosis 42
Syphilis 53
Tetanus 57
Surgical diseases attributable to intestinal and especially colonic infection 59
Suppurative hepatitis or abscess of the liver 59
Appendicitis 63
Peritonitis 66
Pulmonary and pleural infections 66
Endocranial infections of surgical interest 71
Cerebral abscess 73
Hydrocephalus 73
Tumor-formation in the white and colored races compared . . . 74
Benign neoplasms 74
Fibroids and fibro-myoma 76
Keloids 78
Elephantiasis and molluscum fibrosum 81
Angioma 82
Malignant neoplasms 83
The venereal infections 88
Chancroid 90

PAGE

Other familiar types of genito-urinary disease: hydrocele, prostatic hypertrophy, urinary calculus 99
Fractures, rickets, and dislocations 101
Surgical diseases of the circulatory system 104
Hemorrhoids and varicose veins 107
Hernia 109
Congenital deformities 110
Diseases of the skin racially considered 111
Diseases of the eye racially considered 114
Diseases of the ear, nose, and throat racially considered 117
Diseases reputed to prevail exclusively in the negro race 121
General conclusions 123
Bibliography 126


ASSOCIATION

THE SURGICAL PECULIARITIES OF THE NEGRO.

A Statistical Inquiry Based upon the Records of the Charity Hospital of New Orleans (Decennium 1884-94).

Historical and Other Preliminary Considerations.

With the exception of some tribes of Caribs that still inhabit the Gulf Coast of Central America and some islands of the Caribbean Archipelago, all the negroes on the American Continent are directly descended from the black slaves imported from Africa during the slave trade.

According to the Spanish historian, Las Casas, the first negro slaves who were introduced from Africa to the New World were landed in Santo Domingo in 1505. These negroes were intended as substitutes for the native Indians, who, unable to resist the hardships forced upon them by the white conquerors, rapidly succumbed to numerous and fatal ailments.

The early disappearance of the native Indian in the Antilles and the North American Continent in the presence of the Aryan invader, was the apparent excuse for the establishment and spread of the negro traffic and the wholesale importation of the negro to this country. It is said that long before the discovery of the coast of Guinea by the European navigators, slave markets were held in Seville and Lisbon. But when Portugal had taken possession of the African seaboard, and the Spaniards, Portuguese, English, French, and Dutch required robust hands to replace the exhausted natives in the remote western plantations, then a large part of Africa was transformed to "a vast hunting-

ground for human quarry, and the name of 'white' became synonymous with 'cannibal,' as it is still in the Galla language." (Reclus.) All along the west coast of Africa, in the vast area which extends practically ten degrees north and thirty degrees south of the equator, stations sprang up as outposts for this new merchandise. The Portuguese forwarded to Brazil the negroes captured in Angola; Jamaica, Barbadoes, and the northern English colonies received their supply from the Ivory, the Slave, the Gold, and the Cape coast; Louisiana and the French Antilles, from Senegal and the present Congo district; New Amsterdam (New York), from the Dutch stations at Elmira, etc. Thus it was that each American settlement had its corresponding emporium in Africa.

The history of the negro in the United States dates back to August, 1619, when a Dutch ship entered the James River, and landed a cargo of slaves in the colony of Virginia. These slaves were purchased by colonists, and they and their offspring were held in perpetual servitude. "Thus at Jamestown, twelve years from the settlement of the colony of Virginia and one year before the Pilgrim Fathers had touched the new world, began that system in the British Continental colonies, which, under the fostering care of England, overspread the land. During the years from 1619 to the opening of the American Revolution, 1776, more than 300,000 African bondsmen were imported into the thirteen British colonies." In 1865, at the close of the Civil War, the slave population had increased to four millions, and now, according to the Census of 1890 (or 271 years after their first introduction to this country) the black and mixed or mulatto population has increased to 7,470,000, or 11.93 per cent. of the total population of the United States.

In consequence of the diversity of the populations that inhabit the vast territorial area which furnished the material for the negro traffic, a great variety of negro types were introduced into the American colonies. These types were readily recognized by the colonists, and their physical and mental characteristics furnished a basis for differential quotation in the slave market. Thus it was that different prices were asked for the

Senegalese, Yoloff, Bambara, Mandinga, Congo or Guinea, Arada, Caffre, and other slaves, because these were known to possess certain characteristics, as the case might be, which made them desirable or undesirable to the purchasers. In the course of time it naturally happened that these distinctly differentiated types were gradually forced into fusion, and that a more homogenous entity resulted from the amalgamation, so that at the present period it may be said that the typical American negro is a truly composite type which has incorporated in its formation all the generic characteristics of the West African tribes. It would be a matter of great interest to know what were the physiological and pathological peculiarities of these individual groups in Africa before their amalgamation; but this knowledge is wanting, because, outside of the superficial and crude observations of the colonists, no reliable data can be obtained on the subject. It is not probable, however, that these differences were of a fundamental or generic character, as all the slaves imported from the west coast of Africa were, as a rule, individuals presenting the common and distinct characteristics of the *typical* negro race. Nevertheless, it is possible, that with the increasing opportunities for scientific observations that are offered by the ambitious colonizing schemes of the great European powers some actual knowledge of the differential physiological and pathological traits which distinguish the numerous populations of Central and West Africa will be obtained, and thus will be furnished a basis for the comparative study of the negro pathology in the primitive or savage condition of the race apart from the modifying influences exercised by climate and prolonged contact with the white man.

While we must conclude that the American negro, as he is known to-day, is a composite formed by the fusion of many distinct sub-types of black men, it is still claimed that in the United States some of the original sub-types can be recognized. A recent Southern writer (Otken), accepting the classification of other authorities, says: "We have in the United States the Guinea negro (and Congos in Louisiana), the Yoloffs, and the Caffres; to these must be added those in whose veins flow one-half, three-fourths, or seven-eighths white blood, or the mulat-

toes, quadroons, and the octoroons (the last three are designated usually by the common title mulatto). These four classes are found on American soil. The Guinea negroes constitute an overwhelming majority. They are characterized by their woolly hair and black skin, thick lips, a broad, flat nose, prognathous jaws, narrow and receding forehead, a slender waist, high hips, slender limbs, and massive feet, rounded in the bottom. The close observer may have seen a few Yoloffs and Caffres. The Yoloffs, in addition to woolly hair and jet-black skin, possess a fine form and strictly European features. The Caffres are of woolly hair, blackish-brown complexion, and have a fine form and features. The Yoloffs and Caffres may constitute from 5 to 10 per cent. of the pure African races.

Apart from the inherent social weakness which must result from centuries of servitude and bondage, apart from the inferior intellectual, moral, and economic qualities, and only considering the phase of the race problem from a numerical point of view, the negro of the present day and for a long time to come is destined to furnish a large contingent of the indigent, dependent, and defective classes in the Southern States, and, with this prospect before us, his physiological, pathological, as well as sociological peculiarities are at present, even more than in the past, of deep interest to the thinking men, and especially to the medical men of the nation.

To the physicians who reside in the South the problems presented by the negroes as a race are of immediate, practical interest and importance.

In the antebellum period the health of the slave was for obvious reasons most carefully guarded and his preservation from disease furnished the daily occupation of the country practitioner. In many districts of the South this element of the population still furnishes the bulk of the practice, and in the clinic and wards of our metropolitan charities the negro is ever a conspicuous claimant for assistance. Hence we find that some of the most notable contributions to the pathology of the race have emanated from the medical men of the South, and the writings of Nott, Cartwright, Dowler, Fenner, and others living in the midst of us still remain as historical landmarks in the

study of the subject. Some of the more notable contributions to the comparative pathology of this race have been the product of English, Spanish, and especially French observation and experience; but, notwithstanding the great mass of literature that has accumulated on this interesting subject, much still remains to be said, much that is old must be revised, and many impressions that have lingered as actual facts must be examined by the more penetrating and exacting methods of modern research. In the heated wrangles and controversies which have been excited by the negro in every country in which the institution of slavery has existed the physical peculiarities of this race have stood prominently in the foreground. Between the Abolitionist on the one side, who would see in the African only a "lamp-blacked white man," and the slaveholder on the other, who would exclude the negro from the human species, it is not surprising that accounts of his physical characteristics should have been distorted by gross exaggerations. A mere glance at the literature of this subject immediately reveals the fact that many statements have been made by men of unquestioned ability and authority, while laboring under the strain of political excitement, which cannot at present bear the scrutiny of calm and unprejudiced investigation. While these remarks apply chiefly to the anthropological aspects of the race problem, it is nevertheless true that the deplorable influence of partisan contention has left its impress even in the restricted field of observation that is about to engage our attention. Firmly imbued with the convictions that the errors that have crept in the discussion of this subject have been chiefly due to the bias furnished by radical and political prejudice, we have undertaken the present inquiry in an independent spirit, hoping solely to ascertain the truth without regard to other considerations.

As an additional preliminary to the proper study of the subject, and with the view of emphasizing its importance, we shall now consider the numerical status and territorial distribution of the negro population of the United States as it is stated in the Eleventh Census Bulletin, No. 199, 1890. According to this authoritative publication the colored population is approximately classified as follows:

Blacks		6,337,980
Mulattoes	956,989	
Quadroons	105,135	
Octoroons	69,936	
		1,132,060
		7,470,040

According to their residence, they are found as per Census Bulletin, No. 199, as follows:

Residence.	Blacks.	Mulattoes.
North Atlantic States	207,175	62,731
Western division	16,477	10,604
North Central States	297,331	133,781
South Atlantic	2,823,905	438,785
South Central	2,993 092	486,159
	6,337,980	1,132,060

Of the whole African population in the North Atlantic States, 23 per cent. are mulattoes; of those in the Western division, 62 per cent. are mulattoes; of those in the North Central States, 31 per cent. are mulattoes; of those in the South Atlantic States, 10 per cent. are mulattoes; and of those in the South Central States, 13 per cent. are mulattoes. In the three Northern divisions were, in 1890, 728,090 persons of African descent; of this number, 28 per cent. were mulattoes. The Southern divisions had at this time 6,741,941 persons of African descent, and 13 per cent. of this number were mulattoes.

The colored population in the Southern States in 1860 was distributed as follows:

	White.	Colored.
Alabama	830,796	681,431
Arkansas	816,517	311,227
Florida	224,416	166,678
Georgia	973,462	863 716
Louisiana	454,712	562,893
Mississippi	539,703	747,720
North Carolina	1,049,191	561,170
South Carolina	458 454	692,503
Tennessee	1,332,971	434,300
Texas	1,741,190	493,837
	8,320, 796	5,515,175

The Influence of Race Amalgamation

From every point of view, but especially from the anatomical, physiological, and pathological, it is certain that the most important modifying influence that is to be considered in the study of the African in this country is the effect of the infusion of white or Aryan blood into the original pure negro type. This modifying influence as exhibited in the various mixed-breed products—the various degrees of the mulatto type previously referred to—is proportional to the amount of blood of either race that enters into the composition of the individual. It may be very generally stated that the mulatto offspring of typical white or black parents usually presents the external and recognizable characteristics of both races in nearly equal proportions. It must be admitted, however, that the modifying influence of mixed blood is even more profound than the external appearances indicate, and it is independent of the parent traits. Unfortunately, reliable data are wanting, but the almost unanimous verdict of those who are best authorized to speak on this point would lead us to accept as a fact that which we have only a right to consider as an impression—namely, that mulattoes, and especially those of Anglo-Saxon crossing, have not the strength and endurance of either of the pure races. It is certain that they are much more liable to hereditary diseases, especially tuberculosis and syphilis. It is almost certain that when they marry among themselves the next generation is even still feebler; and it is probable, though not certain, that in a few generations they would die out unless reinforced by the stronger blood of the pure races, in which case, of course, they disappear by absorption into one race or the other. In intellect the mulatto is certainly superior to the negro, but it is doubtful if he attains even the mean between the two races; it is doubtful whether the white blood does not lose more than the negro gains by the admixture. These conclusions have been reached by nearly all observers, as, for example, by Morton, Nott, Gliddon, Gobineau, Ferrier, etc. The only prominent exception is that of Quatrefages, who contests them (Le Conte.)[1]

[1] In Mr. Hoffman's recent essay ("Race Traits and Tendencies of the American Negro," August, 1896, p. 207), published since this paper was written, the whole ques-

It is not our purpose to consider the peculiarities of the mulatto in this paper; they deserve a separate study from the medical standpoint. But a reference to the influence of crossing is unavoidable in dealing with the comparative study of the negro. In consequence of the numerous and almost imperceptible gradations in the admixture of the white and black races which has taken place in this country, it is not possible in a statistical investigation of the comparative pathology of the negro race to entirely eliminate the greater or less influence of Aryan admixture.

It is practically impossible to accurately classify the various degrees of coloration, especially since the emancipation of the slaves. We must, indeed, consider that the census statement of their relative proportion in this country is only a coarse approximation. We believe, however, that for the purposes of this inquiry the influence of crossing can be largely eliminated, as the data utilized for this contribution are especially related to the negro of distinct African type. This is due to the fact that in all Southern hospitals, as well as other institutions, race distinction is universal, and the separation of the colored and white is as complete as it is practicable to make it. This sharp line of distinction between the races has made the mulatto averse to public charities. It is only when compelled by the direst necessity that he seeks the shelter of the hospital. He shuns the companionship of the pure negro whom he regards as his inferior, and, as he cannot associate with the whites, he prefers, as a rule, to depend upon other sources of relief than those provided by the State. This is the probable explanation of the increasing

tion of the influence of race amalgamation in the negro is thoroughly discussed. After an exhaustive review of the evidence, this learned authority states the following among other well-supported conclusions: "Whatever the race may have gained in an intellectual way, which is a matter of speculation, it has been losing its greatest resources in the struggle for life, a sound physical organism and power of rapid reproduction. According to Herbert Spencer, sexual relations unfavorable to the rearing of offspring, in respect either to number or quality, must tend to degradation or extinction. . . . All the facts obtainable which depict truthfully the present physical and moral condition of the colored race prove that the underlying cause of the exhaustive mortality and diminishing rate of increase in population is a low state of sexual morality wholly unaffected by education."

number of colored charitable associations that exist at least in New Orleans. At any rate, it is certain that while the mulatto is not an infrequent applicant for assistance in our great metropolitan clinics, the negro of more pronounced African type preponderates in a very decided and unmistakable majority. It is also evident that since the vigilant guardianship of the master has been withdrawn since the war, the number of negroes dependent upon hospital relief is steadily increasing, and is out of proportion to the number of the population. Their ignorance, greater helplesness, and inherent improvidence, cause them to suffer more from the evils of metropolitan life than the less numerous and more intelligent mulattoes. We can thus assert, as a result of long and careful observation, that the hospital statistics that we shall subsequently present, and which constitutes the basis of this contribution, apply essentially to the negro of pure African type, as the mulatto population, which has been unavoidably included, is in such decided minority that the influence of race mixture can be considered as entering at its minimum value in our conclusions.

Influence of the Environment.

A modifying influence of great importance in studying the comparative pathology of the negro race as well as other races is that due to the action of the environment. The transportation of the negro from the torrid regions of the Senegal, Niger, and the Congo to the temperate climate of North America, together with the effect of a sudden transition from the primitive or savage state to the complex conditions of civilization, must have been productive of marked alterations in the physical constitution of these people. The accumulated evidence that has been gathered during the nearly three hundred years that this race has inhabited the North American Continent clearly confirms this induction. One of the first noticeable affects of this change was the gradual elimination of certain diseases which were peculiar to Africa and which were imported by the first slaves to this country. The best-known and most formidable of these were yaws, the sleeping sickness or African cachexia, and the various forms of elephantiasis, all of which were very

common in the days of the slave trade, but which have since become practically extinct in the United States, though still endemic in the Antilles and other regions of our continent in which tropical conditions have permitted these diseases to retain a permanent foothold. On the other hand, the comparative immunity enjoyed by the race against certain diseases, and which were most marked in the earlier periods of their history in this country, has been impaired by their prolonged residence in their new habitat. Thus malaria, which at one time rarely attacked the negro, gradually became more common among them, almost to the same extent as it is known in the white population. It is probable that dysentery, gastro-intestinal diseases, hepatic inflammations, nervous disorders, and certain diathetic affections—*e. g.*, rheumatism and gout—are types of disease which at one time were practically unknown to this race, but now, owing to the operation of the altered conditions of the environment, they have become firmly affixed to their pathology. But the influence of the environment and of forced cohabitation with the white race are nowhere better displayed than in the frightful tribute that the colored race has had to pay to the great pests of Aryan civilization: tuberculosis, syphilis, and cancer. These fatal diseases, as will be shown later in the text, appear to be rapidly increasing among them, so that it is a serious question whether the intellectual progress accomplished by the negro under the tutorship of the white man is not being rapidly neutralized by the deteriorating influence of civilization upon the physical organization of a race that is inadequately prepared for it.

Anatomical Peculiarities.

The gross external differences which are revealed to the eye when typical individuals of the white and negro race are contrasted are too familiar to be detailed here. But, in addition to the differences which are so vividly recognized by the most careless observer, there are numerous characters which distinguish the negro from other races, and which to the comparative anatomist, the anthropologist, the evolutionist, and philosopher are profoundly interesting and significant. Most of these char-

acters tend to confirm the lowly status of the negro in the scale of human evolution, and to establish closer analogies with the anthropoids than exist between these and other races of mankind.

But, no matter how interesting these peculiarities may be to the philosopher, they have no place in the study of the race from the surgical point of view. Indeed, when the negro is dissected by the scalpel of the practical anatomist, the numerous and important differences in structure referred to sink into comparative insignificance, and we are compelled to admit that there is little to be learned by the dissection of the black man that is worthy of special remembrance in the operating-room. Some peculiarities in the organization of the negro have been noticed by practical men which have a distinct application at the bedside, but these have a far greater bearing upon the interpretation of pathological phenomena than in the modification of operative procedures. As students purely interested in the application of anatomical modifications due to race variation to the problems of the surgical art, we can safely assert that the negro presents no peculiarities that are of practical consequence, and that the operations of surgery that are based upon the anatomy of the white man are in every particular applicable to the black race. If it is granted that this appreciation of the comparative anatomy of the negro from the surgeon's point of view is true, we will be excused from attempting a long recital of the comparative anatomical data that have been stored up by anthropologists. It will, however, increase our familiarity with the race, and especially with its pathological peculiarities, to review, if only in a cursory and synoptical manner, the more salient anatomical and physiological features that are of general interest to the surgeon.

Leaving out of consideration the exceedingly interesting differences in the skull that distinguish the negro from other races, and which anthropological research has centred in the total cranial capacity, in the cranial index, in the facial angle, in the precocious ossification of the sutures, in its prognathism, and other numerous characteristics of minor importance, we shall note simply that the average skull of the negro is, as a whole,

not only smaller, but, what is more interesting to the surgeon, unquestionably thicker, than that of the average white. Herodotus mentions the greater hardness of Ethiopian skulls, proving in that respect, at least, that the negro is the same now that he was over two thousand years ago. This point has some bearing on the operation of trephining or performing osteoplastic resections of the skull in this race. The tables are denser and thicker, and the diploic layer correspondingly larger. The study of cranio-cerebral topography from the standpoint of localization is especially interesting in this connection, but we shall reserve its consideration for a later moment. In examining the head for other points of surgical application we find that the recent studies of American specialists in eye, ear, nose, and throat diseases have resulted in obtaining a few facts of practical application.

THE EYE. The most important anatomical peculiarity of the negro eye is the intense pigmentation of the uveal tract, including in this the iris and the ciliary body. It is worthy of notice that these tissues are the most violently attacked in diseases of the eye in this race. The normal proportion of the diseases which attack this region is stated at about 20 per cent. of the ophthalmic affections which prevail among the white population in New Orleans. This rate is surpassed by more than 11 per cent. in the negroes, according to the statistical evidence furnished by Dr. Bruns.[1] As suggested by this observer, the embryological and histological connection between the choroidal tissues and the highly developed and functionally very active skin of the negro may be not wholly devoid of influence.

"The functional condition of the eye of the negro contrasts most favorably with that of the white. Refractive errors are rare (only 6 myopic individuals in a clinic of 1113 negro eye cases). But this is in consonance with all that experience and reason teach us. Refractive defects are among the taxes laid by advancing civilization upon mankind. The more sedentary,

[1] Dr. H. D. Bruns: Fourth Annual Report of Eye, Ear, Nose, and Throat Hospital of New Orleans; also, "Two Years in a Southern Eye Clinic." Trans. Louisiana State Medical Society, 1895.

cerebral, and ocular become the conditions of existence, the greater the advance of ophthalmic science and the larger grows the army of spectacle wearers. As the negro advances in civilization he will be called upon to bear its physical as well as its mental burdens." (Bruns)

THE EAR. Notwithstanding Burmeister's assertions to the contrary, the auricle of the negro, instead of projecting from the sides of the head, appears flatter and in closer contact with the skull, and the auditory canal is straighter and larger than in the white—so much so that, in a fully-developed African adult, the canal will almost admit of the little finger. The canal is so straight and large that, according to otologists who are well qualified to speak on the subject (Murrell,[1] De Roaldes,[2] and Scheppegrell[3]), the ear speculum is seldom required to view the drum-membrane. In fact, the peculiar straightness of the auditory canal in the negro is so strongly typical that it is one of the last traits to be lost in approximating the Caucasian type, and for this reason it is noticeable in nearly all mulattoes (Murrell). The canal is also of slightly shorter average depth than in the white, as would be inferred from the smaller transverse measurement of the negro skull.

No comparative studies of the middle or internal ear have been made. The mastoid is usually quite small, and presents less cell-surface within than is common with the white adult, while the hard or cortical exterior, like the calvarium, is generally excessively thick. It has also been observed that the sinuses about the face of the negro are much smaller in dimensions than in the white race, and are protected by a much thicker bony casing, which is in harmony with the general morphological tendency of the skull in this race. The Eus-

[1] Dr. T. E. Murrell: "Peculiarities in the Structure and Diseases of the Negro." Transactions of Ninth International Medical Congress, Washington, D. C., 1887, v. iii.

[2] Dr. A. W. De Roaldes: Proceedings of Fifth International Congress of Otology, Florence, Sept. 1895. "A Preliminary Note on Some of the Otological Peculiarities of the Negro."

[3] Dr. W. Scheppegrell: "The Comparative Pathology of the Negro in Diseases of the Ear, Nose, and Throat, from an Analysis of 11,855 Cases." Proceedings of Orleans Parish Medical Society, New Orleans, La., August, 1895.

tachian tubes open into an extremely wide and capacious pharynx opposite very broad and unobstructed posterior nasal meati. The pharynx is peculiarly roomy; the tonsils are rarely enlarged, and seldom encroach upon the broad span of the fauces. The cavity of the mouth and the length of the palate are proportional in length to the prognathous projection of the jaws.

THE NOSE. The nose of the negro gains in width at the expense of its projection. It base is large and crushed in, owing to the softness of the cartilages. It is spread out in two divergent alæ, with the elliptical nostrils more or less exposed. The septum is rarely deflected, contrasting in this respect with the septum of the white, which is seldom free from deviation or other abnormality. The greater breadth of the inferior meati corresponds with the larger aperture of the choanæ, and allows of unobstructed ventilation. This corresponds with the greater breadth of the nasal openings in the skeleton, which give to the negro skull its typical platyrrhinian character. It has been claimed that the turbinated bones are more developed, and that the mucous membrane is thicker and more sensitive, but this is a mere impression which needs confirmation.

The peculiarities referred to in connection with the ear, nose, and throat are of interest in practice, because, owing to the larger size of the apertures and spaces, their examination is much simplified in individuals of this race. In addition to the greater ease with which the auditory canal and drum-membrane are explored, the larger size of the canal may account for the comparative rarity of waxy accumulations and for the diminished frequency of other ear diseases which are relatively more common in the white race. The larger size of the nasal chambers would probably account, by the great ventilation of the naso-pharynx, for the relative immunity of the negro from post-nasal catarrh, adenoids, and other affections of this region, which are certainly more prevalent among the whites (De Roaldes, Schep-pegrell *et al*).

Other anatomical peculiarities of the skeleton that are frequently referred to by anthropologists, but with little or no surgical application, are the following: The three curves of the

spine are less pronounced in the negro; the thorax is flatter from side to side; the iliac bones are thicker and more vertical; the antero-posterior diameter of the pelvis is increased; the neck of the femur is set at a less oblique angle; a third trochanter probably occurs more often than in the white; the tibia is more curved and shows a greater tendency to lateral flattening; the upper limb is longer, owing to the relatively greater elongation of the radius and ulna; the foot and hand are longer as a whole than in the white man. The calcaneum is longer and projects further backward. A tendency to flat-foot is normal. The axial rotation of the humerus is greater. The linea aspera of the femur, the clavicle, and the scapula, etc., present peculiarities which give to the skeleton a greater analogy with the simian skeleton than in the white race.

Cranio-cerebral Topography. The relations of the brain to the overlying skull-covering offer no specially important racial distinctions in practice. The writer has repeatedly outlined the great fissures of the cortex of the brain on the skull in both negro and white subjects with the help of Wilson's cyrtometer, Championnière's rules, Horsley's, Anderson's, and Makins's, and other methods. By none of these procedures has he found any difference between the negro and the white that was worthy of notice. These comparative examinations have been made annually from 1886 to 1894 while demonstrating the methods of cortical localization on the skull to classes in Tulane University and in the New Orleans Polyclinic. In the living negro I have also had occasion to test the value of cranio-cerebral topography in three cases presenting focal symptoms (two cases of abscess and one of meningeal hemorrhage), and in no case was there any difficulty in exploring the desired areas by one of the classical methods referred to. I therefore believe that, from a surgical point of view, the brain of the negro in relation with its osseous covering presents no racial variations which are worthy of special consideration in the operating-room.

The Vascular System. Considered as a whole, the vascular system of the black, as compared with the white, presents no differences that are of surgical interest. According to Pruner

Bey, the venous system predominates visibly over the arterial. My personal impression, based upon the observation of several hundred subjects in the anatomical laboratory, would lead me to accept in a general way the correctness of Pruner's observation as regards the venous system. In fact, my experience is diametrically opposed to that of Cartwright, of New Orleans, who in 1852[1] stated that the negroes were difficult to bleed, owing to the smallness of their veins. My experience does not bear out the assertion that on cording the arm of the stoutest negro adult "the veins will be found scarcely as large as those of a white boy of ten years."

Bearing in mind the statement that has been made by a distinguished American anatomist, that anomalies of the arterial system were more frequent in the negro than in white subjects, I have been careful in my experience in the dissecting-room to observe the peculiarities of the arterial distribution in the numerous negro subjects that came under my observation, and, while I have not been able to accumulate a sufficient number of recorded observations for the purpose of a statistical study, I am convinced that, while arterial anomalies are indeed very frequent in the negro, they are not at all characteristic or racially specific. I am not prepared to say that they are more frequent, as Professor Keen has asserted. My impression is that they are not more frequent, and, if they are, the relative differences must be so slight that they cannot be considered as of surgical consequence.

MUSCULAR SYSTEM. In view of the important and interesting results that have obtained in the study of muscular anomalies by comparative anatomists, and of the success that has attended the interpretations of these anomalies by the application of evolutionary doctrines, especially the theory of atavism or reversion of type to ancestral animal forms, it is natural that much curiosity should have been felt by anatomists as to the peculiarities of the muscular system of the negro in this respect. Cuvier was probably the first to investigate the myology of the negro

[1] S. Cartwright: "Diseases and Physical Peculiarities of the Negro Race." New Orleans Medical and Surgical Journal, May, 1852.

in a philosophic spirit, but since the publication of his *Atlas of Comparative Anatomy* in 1849 many of the most competent and authorized anatomists have followed in his footsteps. It is to be regretted, however, that the reports of the dissections of the negro that have been published have been made by observers unfavorably situated for a large collective investigation of the subject. As a result, the conclusions derived from their dissections refer purely to variations found in individual subjects, and lack the weight and significance which would be attached to the analysis of the muscular anomalies found in large groups. Nevertheless, as a result of a careful dissection of negroes reported by Wood, Pye-Smith and Phillips, Murie, Flower, Turner, Hamy, Chudziniski, Giacomini, and Testut, it has been proven that the negro is subject to many anomalies of the muscular system. In this country Baker, Michel, the writer, and others confirm the existence of these variations in the myology of the negro. The published records on this subject, however, are entirely inadequate to definitely settle the question as to the relative preponderance of anomalies in the negro; and it is to be hoped that it will not be long before the vast collection of material that is to be found in the medical centres of the South will be utilized to solve this interesting problem. Among the more important variations that have been claimed as peculiar to the negro, we may mention the greater frequency of the psoas parvus, the greater persistence and development of the plantaris, the more frequent fusion of the flexor profundus digitorum with the proprius pollicis in the hands and feet, the existence of a levator claviculæ and other cervical muscles, the existence of the presternalis, the greater fusion and rudimentary character of the facial muscles, etc.; all of which have been pointed out as marked atavistic traits which make the negro a nearer kin to the quadrumana, or lower species, than the white man.

My experience as demonstrator of anatomy in New Orleans would lead me to accept the conclusions stated by Professor Testut in his masterly work on *Muscular Anomalies in Man* (*Les Anomalies Musculaires*, Paris, 1884, p. 805), to the effect that,

notwithstanding the assertions of numerous observers, we are not in a position to prove, at present at least, that we are acquainted with *any* anatomical disposition in the muscular system of the negro that is at all peculiar to the race, and that the evidence thus far submitted is not sufficient to demonstrate that muscular anomalies are more frequent in the negro than in the white subject.

Whatever may be the results of future investigations in this direction to philosophic anatomists, we must admit that the study of the myology of the negro is, to the surgical anatomist, barren of results.

THE VISCERA. In a general way, the differences that exist in the visceral anatomy of the negro as compared with that of the white can be stated only proportionally, as there are apparently no fundamental architectural differences in the plan of organization of the splachnic organs. It is believed by all students of the negro in Africa and America that the thoracic organs, and especially the lungs, are less developed than in the white, while the reverse holds good with regard to the abdominal and pelvic organs. All the older Southern writers agree with more modern African observers on this point (Cartwright, Nott, Pruner Bey, Rochas, Russel, Gould, S. Hunt, Cunningham).[1]

As to the anatomy of the appendix vermiformis—an organ of exceeding interest to the surgeon as well as to the comparative

[1] Mr. F. L. Hoffmann, in his remarkably comprehensive and learned essay on the "Race Trait Tendencies of the American Negro" (previously referred to), carefully reviews and analyzes the most important and available data that bear directly upon the anthropometry of the American negro, especially in reference to chest capacity, as noted before and after emancipation. He quotes the comparative statistics furnished by B. A. Gould, Actuary to the Sanitary Commission, in his elaborate Report on the Investigations in the Military and Anthropological Statistics of American Soldiers (Cambridge, 1869), and the Statistics, Medical and Anthropological, of the Provost-Marshal-General's Bureau, vol. ii., by T. H. Baxter, M.D., Washington, 1875. The former deals with recruits at the time of application for enlistment, while the latter refers to the soldiers in the field. He also quotes the comparative statistics furnished to Mr. McCauley by negro and white civilians, applicants for life insurance in the West Indies; also those of Dr. Wey, of the Elmira Reformatory, Elmira, N. Y., and those of the white and colored children in the public schools of Kansas City, Mo., and concludes from these and other reliable sources that:

1. The average weight of the colored male of military age and of the colored female

anatomist—I can state that in examinations collected during ten years in the anatomical department of Tulane University, covering the examination of the cæcum and appendix of more than three hundred negro cadavers, I was never able to find any condition that was not reproduced in the same organs of white subjects. Neither was it possible to determine the existence of a preponderating type that would give the appendix of the negro an ethnic character. As a result of my examinations it only appeared to me that the evidences of appendicitis or pericæcal inflammation were less frequent in the negro, though in both races the relative frequency of this condition appeared to be much less than one would be led to suspect by its reported prevalence in hospital, and especially Northern, clinics.

THE SKIN AND ITS APPENDAGES. The distinct characteristics of the negro skin may be summed up as follows:

1. Excess of pigment in the cells of the rete Malpighi, which is deposited like a melanotic sheet all over the surface. There is

children is greater than that of the whites of the same classes. This excess in weight prevails irrespective of age, stature, or circumference of chest.

2. The average stature of the negro is less than that of the white, and the difference, though slight, prevails at all ages

3. The greater weight and smaller stature of the negro as compared with the white are found to prevail practically the same to-day as thirty years ago. The race has, therefore, undergone no decided change in respect to those conditions of bodily structure.

4. The average girth of chest of the negro male of thirty years ago was slightly greater than that of the white, but at the present time the chest expansion of the colored male is less than that of the white. This decrease in size of the living thorax in part explains the increase in the mortality from consumption and respiratory diseases.

5. The capacity of the lungs of the negro is considerably below that of the white. This fact, coupled with the smaller weight of the lungs (4 ounces, Russel) is without question another powerful factor in the great mortality from diseases of the lungs.

6. The mean frequency of respiration is greater in the negro than in the white. As accelerated respiration indicates a tendency toward disease, the fact just stated fully supports those regarding inferior vital capacity and lesser degree of mobility of the chest.

7. The mean lifting strength of the white is in excess of the negro. The prevailing opinion that the negro as a whole is more capable of enduring physical exercise is therefore disproved. This fully agrees with the facts regarding excessive mortality, which in itself is proof of a lesser degree of physical strength.

8. The power of vision of the negro is inferior to the white, but he is less liable to disease of the eye, especially color blindness (based chiefly on the annual reports of the Surgeon-General of the Army, 1888–95, and Gould's Military Statistics, previously referred to).

nothing chemically different in the constitution of this coloring matter. It is identical in composition with that of white races. This melanin of the negro differs from that of the white in *quantity* and *general distribution* rather than in the quality. All negroes are not equally black. Many different shades of color are exhibited by the negro tribes of Africa. In this country, the typical negro is pure black, and when modifications exist they are due to the infusion of Aryan or Indian blood. It is well known that the blacker the negro the healthier and stronger he is; any diminution in color of the pure race outside of Albinism is a mark of feebleness or ill health.

2. The greater thickness of the whole skin, especially of the true derm, is generally conceded to be a real characteristic.

3. The hair, or "kinky wool," presents distinct histological characteristics, which of all African peculiarities is probably the most specific, as a single factor, in establishing the identity of this race. As Pruner Bey demonstrated and P. A. Browne confirmed, it differs specifically from the hair of other races in the fact that it is eccentrically elliptical or flat on section and spirally twisted on its axis. The coloring matter is not contained in a central canal, but is disseminated over the cortex and intermediate fibres; in fact, the hair has no central canal. Furthermore, the hair of the negro issues out of the epidermis at a right angle, while that of the white race emerges at an acute angle, etc. The hair of the negro is tenacious in retaining its pigment and vitality, hence canities can safely be regarded as an evidence of very advanced age in individuals of this race. Physiological baldness is one of the rarest of phenomena, even in the oldest negroes.

4. The villosities are scant or absolutely wanting on the body of the negro. Those parts which in the whites are always covered with hair are in this race very scantily supplied.

5. On the other hand, the glandular cutaneous system is more highly developed in the negro than the white. The sweat glands are highly specialized; the constant and greater evaporation which takes place from the negro skin, coupled with the excessive action of the sebaceous glands, maintains the supple-

ness of the epidermal layer and the general freshness which causes negresses to be sought for in the harems of the East (Quatrefages). The excessive activity of the sebaceous glands gives a peculiar oily lustre to the skin of the healthy negro, which is quickly diminished by disease. This oily exudation has a very strong odor which Pruner Bey has compared to that of the buck-goat, and in the creoles of Louisiana to alligator musk. This odor is strongest in the most robust; children and the aged have very little of it. Clinically considered, the deep pigmentation of the skin of the negro is a frequent source of confusion in the study of the dermatological lesions of the colored race.

The greater thickness of the subcutaneous layer has been noticed by many observers. In the women, this is associated with a special and characteristic development of the adipose tissue, as, for example, in the nates, which causes them to project more voluminously than in white women. The well-known picture of the Hottentot Venus, which is exhibited in many anthropological text-books, presents this characteristic to a striking degree. Though much more prominently developed in Africa, this trait is still well preserved in many of the colored women of the United States and Antilles. This tendency to fatty development of the nates (steatopygia), together with an excessive development of the nymphæ and clitoris, which was common in the earlier days of slavery, we believe is now rapidly disappearing in the American negress, and, with many other still well-pronounced characteristics, will probably be soon lost under the influence of race admixture and other unfavorable conditions of environment. The tendency to greater development of the subcutaneous and submucous connective tissue is probably shown best in both sexes about the labial region of the face, where, combined with an excessive thickness of the labial mucosa, it contributes largely to the prognathism of the face, and gives to the race one of its most distinctive characters.

The highly differentiated skin of the negro gives to this race a strong individuality in actual practice. As general surgeons we cannot consider the varied and numerous influences that the

special anatomy and physiology of the skin exercise on its pathology. We must note, however, that notwithstanding the enormous deposit of pigment that is contained in the skin of the negro it appears to be one of the elements in its composition that is the least likely to cause disturbance. It is a notable fact that notwithstanding the extreme frequency of neoplastic formations in the skin, such as keloids, sarcoma, and other malignant growths, the pigmented tumors are extremely rare in this race. The microbial flora of the skin has not yet been studied. This curious and interesting field of inquiry is still waiting a pioneer explorer. It would be interesting to observe the conditions of existence of the micrococcus epidermis albus of Welch, which is the normal and obligate parasite of the skin in the white races. Would the altered conditions of environment affect the chromogenic reactions of this coccus? The glabrous or hairless quality of the negro skin is favorable to sterilization, but unfortunately this favorable condition is offset by the woful lack of hygiene which is shown by the average individual of the race. It is nevertheless a fact that, in spite of its usual uncleanliness, the skin of the negro can be readily sterilized for surgical purposes by adopting the methods that are now classical in surgical practice. No better proof of this is required than by observing how promptly the skin of the negro obeys the laws of tissue-repair under the protective influence of asepsis.

Physiological Characteristics.

It would be impossible, as well as unnecessary, in a contribution of this character to review in detail the general physiological peculiarities which distinguish the negro from the white man. The same general complaint must be entered here as in dealing with other phases of the comparative study of the race—viz., the abundance of personal impressions and lack of actually recorded facts.

Confining ourselves to the salient peculiarities of surgical interest, we shall insist, with all observers, on the lessened

sensibility of the nervous system to pain and shock. It is also believed—and my personal experience confirms this impression—that the tactile sensibility as revealed by the æsthesiometer is lessened. This would appear to be associated with a histological difference in the development and shape of the tactile papillæ of the skin (Bordier). This diminished peripheral sensibility is in harmony with the inferior organization of the race. Diminished sensibility is not peculiar to the negro, but common to all savage races. It is only brought out in relief when the negro is contrasted with the white man and especially the more refined and intellectual types of the latter. This diminished sensibility is most striking in the savage negro. Livingston was one of the first to call attention to the fact that the negro in his native African wilds can undergo the most painful operations with apparent indifference. The not uncommon practice of the Yoloffs, who rip the abdomen open and handle the protruded bowels with the view of testing the virtues of the *gris-gris* given them by an itinerant marabout, and then returning the exposed entrails into the abdominal cavity without apparent concern (Bordier), is surely convincing, if true, not only of the less sensibility of these people to pain, but also indicates a greater immunity from the usual dangers of peritoneal infection. Our daily surgical experience in the South proves that as regards pain the negro of to-day is true to the traditions of his savage ancestors. On account of this blunt sensibility of the nervous system the negro bears surgical operations remarkably well. "As is well known, the emotional side of the negro is well developed, and there is in him a certain tendency to fatalism which leads him to accept accidents and illness with all their consequences as parts of the inevitable, and to be borne without murmuring as the dispensations of a higher power against which it is useless to struggle" (Balloch). More often I believe it to be due to a native and characteristic insouciance or indifference, which more certainly relieves the negro from worry as to the future than is likely to be the case with the white man.

This combination of circumstances—*i. e.*, a naturally diminished peripheral sensibility, coupled with a more passive con-

dition of the mind—makes the negro a most favorable subject for all kinds of surgical treatment with or without preliminary anæsthesia. As a rule, the negro bears anæsthetics well, and takes them readily enough if he has confidence in his medical adviser. If he is not properly prepared psychically by previous assurances which increase his confidence and sense of security, his childlike superstitions and emotional nature are intensified and brought prominently into relief during the stage of excitement. Of course, the negro, like the white man, is subject to the dangers that are inherent to all kinds of general anæsthetics. Chloroform, which has hitherto been the preferred anæsthetic in the South, acts on the negro precisely as it does on the white. Though chloroform, as a rule, is well borne by them when not suffering from conditions which contraindicate its use, I have known of more than one death in individuals of this race, which demonstrated that they are just as susceptible to its dangers.

Cocaine anæsthesia is well adapted to the negro constitution. I cannot say that cocaine acts more decidedly in the negro as a local anæsthetic than in the white man, but it is probably because of his normally diminished sensibility that it is easier to obtain the maximum local effect of this agent with a minimum quantity of the drug. I have performed a laparotomy for gun-shot-wounds of the abdomen; gastrotomy for inoperable œsophageal strictures; many typical amputations of the upper extremities as far as the wrist and the metatarso-phalangeal joint in the foot; amputations of the penis, castration, and other operations on the genitals; external urethrotomy; suprapubic cystotomy; ligation of the large arteries (the deep primitive carotid near its origin; the external carotid and its branches to starve inoperable malignant growths, etc.) under cocaine anæsthesia; and I have come to the conclusion that Koller's great discovery, as modified by subsequent investigators (Corning, Reclus, Schleich), has proved as great a boon to the negro as it has to the white man.

It has been stated, especially by French naval surgeons who have practised in the colonies in Africa and America, that the blood of the negro is thicker and darker, and that it coagulates

more rapidly than that of the white. To use an old expression, it exhibits a greater plasticity. It is stated that the corpuscles show a greater "adhesiveness" (Bordier). It has been claimed, on this account, that the negro is less likely to suffer from hemorrhage. At one time it was also believed that because of this greater "plasticity" of the blood the negro was more tolerant of mercurials, which, according to the old humoral doctrines, was an aplastic remedy and had a tendency to diminish this greater coagulability of the blood in the negro. I do not believe that any modern observer would be prepared to substantiate these views, and my impression is that as far as the coagulability of the blood is concerned the negro is not different from the white man. On the other hand, two of the worst cases of hæmophilia that have come under my observation were in pure negroes. The truth of the matter is, the comparative hæmatology of the races still awaits a pioneer investigator.

It may be well to mention in this connection, as a matter of therapeutic interest, that the blood of the negro bears dilution with the ordinary hot saline solution (0.6 of 1 per cent.), that is used in surgical practice for the relief of acute traumatic anæmia and shock admirably well. Some of the most brilliant results which have been obtained by this method in desperate cases in our Charity Hospital practice have been in negroes.

The older authors laid a great deal of stress upon the different temperament of the races. Cartwright, who may be quoted as a representative of this class, laid great stress upon this feature in the negro constitution. He said the liver and the rest of the glandular system are out of proportion to the sanguineous and respiratory system, "the white fluids predominating over the red." In other words, the lymphatic temperament was dominant in the negroes. Whatever may have been the temperament of the race in this country when it was first imported from Africa, it is certain that at the present day the temperament is distinctly lymphatic, if by this we mean a predisposition on the part of the tissues to tubercular infection. That this is one of the characteristics of the colored race, as we know it to-day, is undeniable, as we will prove when dealing with its pathological characteristics.

Pathological Characteristics.

Before engaging in the study of the comparative surgical pathology of the negro race it will not be superfluous to premise our consideration of this phase of the subject with the introduction of a statement which we believe to be of fundamental importance. With the illustrious Quatrefages (*The Human Species*, 1879), we must first submit the following propositions as guiding axioms in the study of racial pathology. First, the essential or fundamental nature (biologically speaking) of all men is the same. Second, the formation of distinct races has been the sole cause of modifications in this fundamental nature of all human groups. Third, the several characters and special aptitudes which constitute a kind of acquired nature have, in each of the groups, been developed under the influence of varying conditions of existence. It is clear that when the disturbing actions or the causes of disease or injury act upon the *fundamental* element, the same causes will produce *fundamentally* similar effects; when, on the contrary, this action is exercised upon the *acquired* element of each race the same causes will produce *different* effects. In other words, "unity of species and multiplicity of races involve the liability of all men to common diseases, which will, at the most, vary as to accessory phenomena; but also allow the existence of diseases more or less peculiar to certain human groups."

Whatever may be the opinions of anthropologists as to the origin of human species, it cannot be denied that these propositions are in harmony with what we know of the biological constitution of mankind, and that they can be accepted as established in the study of the comparative pathology of all the races.

In the case of the negro race, the acquired nature was in its origin highly differentiated by selection and adaptation to the conditions of environment. This acquired nature is revealed in the special immunities and aptitudes to disease of the pure African negro, when studied in his native habitat or immediately after transportation to an entirely new environment. When the

negro was first imported to America he brought with him diseases and peculiarities that were new and totally unknown to the inhabitants of the American colonies. Yaws, the sleeping sickness, elephantiasis, were prominent examples of this class. The positive but not absolute immunity to malaria, yellow fever, scarlatina, diphtheria, etc., were also evidences of acquired racial differentiation. Now, it is a fact, that it has taken only a short period of less than 300 years to completely modify the originally acquired and highly differentiated racial peculiarities that the negro brought with him from Africa. The diseases that were at one time so common and specific to the race have practically disappeared, and are known only as pathological curiosities in this country. On the other hand, the study of the statistics furnished by army surgeons during the Civil War, the Census of 1890, by Southern hospitals, and other reliable sources, indicate most plainly that the general immunity formerly enjoyed by the negroes from certain diseases is rapidly disappearing, and that he not only shares the physical tribulations of the white race, but is, in reality, developing previously unknown morbid predispositions, which are increasing his general tribute to disease and death even more than in the white race. This has become particularly manifest since the race has been thrown entirely upon its own resources, and since emancipation compelled the negro to enter, without any kind of preparation, into active competition with a superior race. From all this we must gather that absolutely specific diseases, ethnically speaking, have ceased to exist in the American negro of to day; that *absolute* immunity from certain diseases does not exist; and that he differs from the white man simply in the *relative* predisposition to, or immunity from, the various diseases that prevail in this country. It is thus demonstrated that the fundamental nature is the same in both races, and that study of the differences must be based upon the action of the common factors of disease upon the *acquired* constitution of the negro which, in America, must be regarded as the sum of his original race distinction, plus the modifications due to a new environment and a fierce struggle for survival in competition with an aggressive and superior race.

THE SURGICAL PECULIARITIES DEFINED. In the preceding pages we have sufficiently considered the peculiarities of interest to the surgeon that are due to the racially differentiated organization of the negro. We are now prepared to consider his behavior in conditions of injury and disease. For the purposes of this inquiry we shall consider as the surgical traits of the race those which are essentially connected with the idea of traumatism and with morbid phenomena resulting therefrom. We shall also recognize as surgical peculiarities the pathological processes which are connected with objective, demonstrable and chiefly external lesions; with those infections and tissue-reactions which, beginning locally, become secondarily general or constitutional; or, conversely, when beginning in constitutional disturbance manifest themselves secondarily in localized external or tangible lesions.

Notwithstanding the defectiveness of this conception of what should be considered "surgical" peculiarities, we believe that it will serve for the purpose of this brief study, and, with this end in view, simply submit it as a provisional definition.

THE CHARITY HOSPITAL OF NEW ORLEANS. We must now linger for a moment on the very threshold of our subject to consider the sources from which we have gathered the material that is to serve as a basis for this study, and which, in view of its importance, we trust will not be considered an inappropriate digression. While the statistical evidence available for the comparative study of the morbidity and mortality of the colored race has been rapidly accumulating in the United States, especially since the invaluable data furnished by the official Census of 1890 have laid a broad foundation for reliable and instructive generalizations—it has appeared to me preferable and more satisfactory to base my inquiry upon personal studies of the material offered by an institution with which I have been a long time familiar and which is in every way most favorably situated for the purposes of this undertaking. The statistical data referred to are the records of the Charity Hospital of New Orleans, which have been preserved since the year of its foundation, 1832. These records have been occasionally

utilized by local observers, who have been directly or indirectly interested in this subject. No effort has been made, however, to analyze on a large scale and in a systematic manner the vast collection of data that have found a permanent depository in this veritable treasure-house of the student of racial pathology. The superb advantages of the Charity Hospital as a centre of medical observation need no commendation to those who, like myself, have lived under its shade for many years or received their professional training within its walls. To those who are not so familiar with its significance as a great centre for clinical study, it will suffice to remind them that the Charity Hospital is the oldest institution of its kind in the South; that it is by far the largest public charity in the Southwest; that it is situated in the heart of a large metropolis, which, according to the United States Census of 1890, embraces within its limits a population of over 177,376 whites and 64,663 recognized colored persons. Furthermore, it must be remembered that the Charity Hospital is a State institution, and as such is open to patients from all the parishes of Louisiana. The population of the State from which the patients of the hospital are drawn is constituted by over 454,712 white and 562,893 black inhabitants (Census of 1890). In addition to this, the hospital opens its doors to many of the indigent sick, white and black, from neighboring States, notably Mississippi and Texas, and it gives hospitality and assistance to a number of other sufferers from the Mississippi Valley States, all along the river banks, from Cairo to the jetties. With this preliminary explanation, it is not surprising that we should be able to present in this document a collection of statistics on the comparative pathology of the white and colored races such as cannot be rivalled by any other single institution of its kind in the United States. Thus we notice that in the sixty-three years that have elapsed since the erection of the present building in 1832 to 1894, the hospital has admitted 481,288 patients, of whom over 33 per cent. were colored. As an example of the number of patients treated in the hospital we will quote the figures of the year 1894, which tell that 6100 white and 3750 black, or a total of 9850, had been admitted

during the year. These figures, it must be remembered, closely approximate the average total for the last ten years in the history of the hospital. Besides this, the hospital offers still a wider field for observation in its vast outdoor clinic, which in our city is a substitute for the free dispensary of the Northern hospitals. In the report of 1894 we find that during that year 13,312 consultations to white and 6633 to colored patients, or a total of 19,945 consultations were given in the various departments of the outdoor clinic. While these figures do not represent the number of separate individuals under treatment, but only the number of consultations, it gives a fair idea of the unsurpassed opportunities for observation that are offered by this institution as a whole.

It would have been more satisfactory to have been able to compile the statistics of the Charity Hospital from the standpoint of racial pathology for the whole period of sixty-three years, from 1832 to the present date; but the enormous labor entailed by such an undertaking and the difficulty to be overcome in collecting the data from the unpublished records have compelled me to limit my research to the last decennium covered by the ten years from 1884 to 1894. While I have limited my compilation solely to the statistics furnished by the indoor service, because they are more accurately recorded, I believe that the results obtained are more than sufficient to permit us to draw conclusions that are instructive and worthy of consideration.

Before proceeding further, I must acknowledge my great indebtedness to my friend, Mr. Edward Hynes, M.E. (Tulane), who has rendered me invaluable assistance in compiling the various statistical groups and in summarizing the tabulated results.

As a preliminary to the study of the diseases recorded during the decennium 1884–94, it was first necessary to determine the numerical proportion of the hospital population according to races from which the figures are derived. The accompanying table presents the grand total of the indoor population that was admitted and treated for all diseases, and establishes the relative proportions of the white and black inmates which is necessary

in making the subsequent estimates of relative morbidity and mortality:

TABLE I. *Hospital population. Years, 1884–1894.*

Whites.

Year.	Total.	Remaining Dec. 31st.	Discharged and died.	Died.
1884.	6076	506	5570	582
1885.	5216	457	4759	611
1886.	4711	485	4226	550
1887.	4232	557	3675	517
1888.	4402	490	3912	519
1889.	4507	450	4057	503
1890.	4717	484	4233	564
1891.	5168	506	4662	592
1892.	5499	497	5002	631
1893.	5670	584	5086	598
Total,			45,182	5667

Colored.

Year.	Total.	Remaining Dec. 31st	Discharged and died.	Died.
1884.	1801	141	1660	403
1885.	1557	99	1458	394
1886.	1652	154	1498	410
1887.	1767	165	1602	424
1888.	1709	161	1548	351
1889.	1938	147	1791	417
1890.	1963	158	1805	459
1891.	2180	180	2000	436
1892.	2922	216	2706	504
1893.	3373	202	3171	586
Total,			19,239	4384

Total population, White and Colored = 64,421.

	Whites, per cent.	Colored, per cent.
Proportion	70.15	29.85
Mortality	12.54	22.79

We are now prepared to undertake the investigation of the proportional prevalence and mortality of surgical diseases and conditions which were treated in the hospital during this time.

It appears to me that there is no better way of studying the

comparative pathology of different races and species than by observing the behavior of the tissues after traumatism. The tissue reactions which are of the greatest interest to the surgeon under such conditions are (1) the liability to infection, indicating thereby the greater or lesser resistance of the tissues and the general defensive qualities of the organism; and (2) the history of tissue formation during repair or in other conditions that lead to neoplastic formation. This last would reveal most clearly the histogenetic resources and trophic equation of the tissues in each race. In order to systematize our study, I shall, for the present, begin by considering the relative susceptibility of the tissues of both races to the more important wound or surgical infections.

SIMPLE PYOGENIC INFECTIONS. Of these, in order of frequency, we will first take up the pyogenic infections which give rise to circumscribed suppuration and which are invariably related to a preponderance of the various staphylococci (aureus, citreus, albus, etc.).

The ideal method of studying the relative liability of the two races to suppuration would be to compile a series of cases representing primarily aseptic wounds of the same kind, such as those produced by a surgeon in an amputation far from the seat of injury, or in operations upon primarily sterile tissues, as in the removal of tumors, ligation of arteries, etc. If these cases were treated by precisely the same methods, by the same operator, and the operations were performed upon the same class of people, then a parallel made between the black and the white patients would truthfully indicate the relative pyogenic susceptibility of the patients of each race by a simple record of the cases of suppuration in each. Unfortunately, we are not able to present any such statistics, but hope that it will not be very long before we shall be able to do so in sufficient number for useful comparison. In the absence of these data there was only one method of obtaining even an approximate idea of the pyogenic susceptibility of the race, and this was done by putting together all the cases of acute suppuration that are reported in the hospital records during the decennium. In addition to this,

all suppurative diseases which are now recognized as due mainly to pyogenic infections of the staphylococcal type were also incorporated.

Thus all the cases that are classified in the reports under the succeeding designations were collected and grouped under the common title "pyogenic infection." These are abscess, carbuncle, furuncle, furunculosis, phlegmonous abscess, and all types of abscess without regard to location. The specific abscesses (tubercular, etc.) were excluded. The following table and summary show the result:

TABLE II. *Abscess. Years, 1884–1894.*

Year		Whites		Deaths			Colored		Deaths	
1884.	Whites,	40 cases,		2 deaths;		colored,	17 cases,		3 deaths.	
1885.	"	47	"	4	"	"	18	"	3	"
1886.	"	47	"	2	"	"	18	"	0	"
1887.	"	39	"	2	"	"	17	"	5	"
1888.	"	56	"	1	"	"	18	"	4	"
1889.	"	63	"	1	"	"	22	"	2	"
1890.	"	50	"	0	"	"	35	"	5	"
1891.	"	68	"	3	"	"	23	"	3	"
1892.	"	79	"	4	"	"	43	"	3	"
1893.	"	92	"	2	"	"	60	"	3	"

Total, 852: Whites, 581—21 deaths; Colored, 271—31 deaths.

	Whites, per cent.	Colored, per cent.
Actual prevalence	68.19	31 81
Actual mortality	3.61	11.44
Decennial prevalence . . .	1.29	1.41
	13 in 1000	14 in 1000
Decennial mortality . . .	0.046	0.161
	46 in 100,000	161 in 100,000

In this, as in all subsequent tables, the figures corresponding to the decennial prevalence and mortality are the true indices to the comparative prevalence and mortality. They indicate the real ratio of morbidity and mortality of the condition or the disease under consideration to the white and colored hospital population respectively.

The conclusions that we must draw from these figures is that, contrary to the generally-expressed opinion, the pyogenic qualities of the black and white races are about equal, though the mortality is three times greater in the negro.

This also confirms my first impression that, in identity of circumstances, the wounds of the negro heal by primary union just as readily as in subjects of the white race; and, furthermore, that insomuch as traumatisms are concerned, the cellular resistance is equal to that of the white. Again, I would repeat that the negro is benefited just as much as the white man by the introduction of antiseptic and aseptic methods of treatment. Though I have not been able to make a detailed study of suppuration according to topographical distribution, I am convinced that our records would confirm the statistics presented by Professor Tiffany, of Baltimore, in his valuable contribution on the subject, which was read before this Association in May, 1887. According to Professor Tiffany the following would be some of the differences in the relative proportion according to topography: Abscess of neck and axilla: white, 44 per cent.; negroes, 56 per cent. Abscess of hands and fingers: white, 75 per cent.; negroes, 25 per cent. Alveolar abscess: white, 45 per cent.; negroes, 55 per cent.

"Alveolar abscess was observed very rarely in the dark negro, but very frequently in the light mulatto." This is in accordance with the great rarity of dental caries in the pure negro, and its great frequency in the mulatto.

The greater frequency of cervical and axillary abscesses is due chiefly to the greater prevalence of lymphatic tuberculosis in the colored race, though we have been as careful as possible to exclude the specific infections from our table. Tiffany's statistics confirm this. He states that examination showed that enlarged lymphatic glands in the neck, axilla, and groin in the white equal 41 per cent.; in negroes 59 per cent. I also believe, with this observer, that excessive pus-formation occurs not only with scrofulous infection, but with syphilitic as well. This, I believe, is simply due to the greater neglect and lack of hygiene in the negro which permit the lesion of these dis-

eases to become more readily contaminated and aggravated by pyogenic germs.

SMALLPOX AND VACCINIA In connection with the predisposition to pyogenic infection and to comparative tissue resistance of the white and colored races to this mode of infection, the evidence furnished by the prevalence and mortality caused by that most striking pyogenic disease, smallpox, and its preventive, vaccination, should not be overlooked.

It is the general impression in the profession that the colored race suffers much more from smallpox than the white race. The supposition is fairly supported by statistical proof. Hoffmann, who has compiled the comparative mortality from smallpox from various sources subsequent to the writing of this paper, shows that in Charleston, S. C., for the period 1822–1848 there was a marked preponderance of negro mortality from smallpox, there being 45 deaths among the white population and 149 among the colored. The experience of the Federal Army during the war was 5.49 cases and 1.95 deaths in 1000 of mean strength among the white troops, and 36.62 cases and 12.21 deaths among the same number of colored. It does not appear that out of the same number of smallpox cases a large number died among the whites. The statistics of the Freedmen's Bureau during the war show that while the disease was most prevalent among the refugees who sought Federal protection during the war, the mortality was not markedly greater among them (15.49 per cent. for the whites, and 17.55 for the colored, according to Reyburn). In the New Orleans epidemic of 1875 the mortality for the whites was 31.53 and for the colored 42.14. As Hoffmann concludes, these figures " do not show that there is any specific race-tendency toward a higher mortality or even a greater prevalence of the disease among the negroes. On the contrary, the statistics for the last twenty years show that, if subjected to vaccination and revaccination, the prevalence of this disease can as readily be prevented among the colored as among the white population." The fallacy which underlies any estimate as to the relative predisposition of the races lies in the want of satisfactory statistics which would show the prevalence

or mortality of smallpox among the vaccinated of either race. Were the statistics available I have no doubt that the results would show that there is no special liability to contract the disease among the negroes, and that the greater prevalence of this disease among them is due solely to the neglect of vaccination. As to vaccination, I would state that it is my impression, as a sanitary official and public vaccinator in New Orleans, that the vaccine pustule offers no special peculiarities in the negro. In my experience I did not observe either a more violent pustular reaction or greater facility of inoculation in the negro than in the white children. Nearly the same average number of refractory cases existed in the negroes as in the whites.

The Comparative Liability of the Races to Streptococcal Infection.

Next in frequency and importance to the simple staphylococcal infections—a term which we have used somewhat artificially to designate the more circumscribed suppurations—we must place the dangerous types of progressive suppuration which are attributed to the chain-cocci.

These streptococcal infections are usually associated with conditions of lessened tissue resistance. They indicate, as a rule, when complicating traumatism, that the normal defences of the organism have been demolished, and that not only is the phygocytic force insufficient, but the regenerative activity of the fixed tissue-cells is paralyzed by the overwhelming toxicity of the products elaborated by the microbial invaders.

This condition is perhaps best studied in the acute phlegmonous and fulminating cellulitis, so closely akin to malignant œdema, that complicates the neglected wounds of very debilitated subjects. While bacteriologists do not agree on the pyogenic properties of Fehleisen's coccus, they all teach that this micro-organism is the essential cause of erysipelas. Many, in fact, believe that while this coccus is eminently toxic, it is only capable of producing sepsis without suppuration. That when suppurative processes, such as phlegmonous cellulitis, accompany erysipelas,

these are due to mixed infections with other varieties of cocci. Nevertheless, it is true clinically that erysipelas, as a wound complication, is invariably associated with arrested repair, with a greater tendency to tissue destruction, and that progressive suppuration is the almost invariable result.

We will therefore accept a susceptibility to erysipelas as a criterion of the relative susceptibility of the races under comparison to the streptococcal infections.

By collecting all the cases reported as erysipelas that have occurred during the decennium, we have prepared the following table (III.), which exhibits this statistical result:

TABLE III. *Erysipelas. Years, 1884–1894.*

Year	Whites, cases	Whites, deaths	Colored, cases	Colored, deaths
1884.	Whites, 36 cases,	7 deaths;	colored, 12 cases,	2 deaths.
1885.	" 39 "	5 "	" 8 "	2 "
1886.	" 39 "	5 "	" 15 "	5 "
1887.	" 31 "	3 "	" 3 "	0 "
1888.	" 26 "	4 "	" 5 "	2 "
1889.	" 32 "	2 "	" 11 "	5 "
1890.	" 17 "	0 "	" 1 "	1 "
1891.	" 28 "	2 "	" 6 "	1 "
1892.	" 47 "	4 "	" 15 "	2 "
1893.	" 19 "	0 "	" 4 "	0 "

Total, 394: Whites, 314—32 deaths; Colored, 80—20 deaths.

	Whites, per cent.	Colored, per cent.
Actual prevalence	79.70	20.30
Actual mortality	10.19	25.00
Decennial prevalence . . .	0.695	0.416
	70 in 10,000	42 in 10,000
Decennial mortality . . .	0.071	0.104
	7 in 10,000	10 in 10,000

We must, therefore, conclude from this that in our hospital experience erysipelas is more common among the whites; though, as usual, the mortality among the negroes is greater. The conclusions drawn from our statistics are also in harmony with those obtained by the study of the abscess group, and confirm my impression that the negro is *not more* subject, and is

possibly *less liable* than the white, to both the acute circumscribed and the progressive pyogenic infections.

Septic Infection Proper or Septicæmia.

Next in order of ascending gravity in the scale of the surgical infections, we must place true septicæmia. In this condition, the cocci of various types of virulence have broken through the barriers offered by the living tissues, and have succeeded in effecting their entrance into the circulation. In this type of surgical infection we are not dealing with simple sapræmia or toxic poisoning, but with an actual invasion and active reproduction of the germs in the blood itself.

In order to study the comparative liability of the races to this most formidable condition, we must avail ourselves of its best-defined and most rapidly-recognized type. This we find in puerperal septicæmia, or in the study of the septic complications of the puerperal state. In order to make this study as complete as possible, the total number of obstetrical cases admitted into the hospital for the decennium of 1884 to 1894 was obtained by adding together all cases classified under abortion, pregnancy, and their complications. This table, therefore, embraces all cases classified under septicæmia, puerperal fever, puerperal peritonitis, and pelvic inflammation, which are all included in our records under the general title of "diseases and conditions attending utero-gestation."

It was now ascertained that during this decennium a grand total of 1997, or nearly 2000, pregnant women had been delivered in the hospital. Of these, 1174 were white and 823 were colored women. Utilizing this as a basis of population to estimate the relative prevalence of puerperal sepsis, we found that 38 or 3.24 per cent. of the white and 5.22 per cent. of the colored women had suffered from some form of septicæmia; or, more graphically, as is stated in the accompanying table, 32 in 1000 white and 52 in 1000 colored women suffered from this complication:

TABLE IV. *Septicæmia. Years, 1884–1894.*

	Whites.			*Colored.*		
	Obstetric cases.	Total.	Died.	Obstetric cases.	Total.	Died.
1884.	88	3	2	43	8	4
1885.	143	10	4	62	11	7
1886.	111	6	5	72	8	6
1887.	113	3	3	76	2	2
1888.	92	2	1	65	2	1
1889.	124	3	0	88	4	0
1890.	109	0	0	100	1	1
1891.	108	1	0	78	4	2
1892.	135	4	0	98	2	2
1893.	152	6	1	141	1	1
Total,	1174	38	16	823	43	26

Total white and colored cases, 81.

	Whites, per cent.	Colored, per cent.
Actual prevalence	46.91	53.09
Actual mortality	42.11	60.47
Decennial prevalence . . .	3.24	5.22
	32 in 1000	52 in 1000
Decennial mortality . . .	1.36	3.16
	14 in 1000	32 in 1000

The conclusion that we must draw from this is that puerperal septic infection is much more frequent in the negro, and is also more than doubly fatal in women of the same race. This result is in accordance with that of other Southern observers both in and out of hospital practice. To one familiar with the conditions of the negro services in the hospital in the years that preceded the introduction of trained nurses in the female colored wards, and who knows that little regard was paid by the old attendants to the principles of antisepsis in the lying-in chamber, it will not be astonishing to note the greater prevalence of sepsis in cases of this class. Since the trained nurses have been introduced in the institution the conditions have entirely changed as regards the probabilities of hospital contamination. It must be remarked, however, that the dangers incurred by the negro women in the hospital in the past were not greater, practically, than those which surrounded the white

women, so that the figures presented, even in the early years of the decade, must be considered as fair indices of the relative susceptibility of infection. We must look to conditions entirely outside of the hospital atmosphere for an explanation of this excessive rate of prevalence and still much greater degree of fatality of puerperal infection in the colored race. In the main, I believe that these different results can be accounted for by the vitiated environment and pre-existing infections, especially those of a venereal type, which prepare the way for the more formidable pyretic complications of the puerperium. To one acquainted with the hygienic condition of the colored women, and the character and standard of morality of those who apply to the hospital for relief, and, more particularly, with the numerous cases that come in to be treated for the septic complications of abortion, it will not be surprising that sepsis is more frequent and more fatal in individuals of this race.

Profoundly impressed as I have been by this greater frequency and fatality of puerperal sepsis among the negro women, I am not convinced that it indicates any inherent ethnic predisposition, but still believe it is due to the conditions of their environment. It should be remembered that in addition to her greater immorality, which predisposes to infection, the negress is liable to all the causes of dystocia that complicate childbirth in the white woman. Finally, these facts certainly prove how mistaken are those who believe that the contemporary American negress is like her African sister, who, living in a savage state, is free from the complications of the modern civilized woman. As Dr. E. R. Corson, of Savannah, has said: "She is not only liable to them, but from neglect and improper treatment suffers more from them than the white."

Tuberculosis.

Since Koch's historic discovery of the tubercle bacillus in 1882, which established the unity of the scrofulous and tubercular lesions and gave us a positive criterion for their identification, the domain of surgical tuberculosis has enormously increased, and now stands prominently in the foreground as one of the most potent factors of morbidity and mortality in surgical

practice. A better conception of the nature of the numerous lesions previously unrecog nized as tubercular has enlarged the comparative study of racial susceptibility to this infection, and we are in a better position to-day than formerly to determine more closely the relative prevalence of this infection in the white and colored races.

Tuberculosis has been called the great "white" plague; but if we look at this matter statistically and through the eyes of all experienced observers, we could with greater propriety call it the "black plague," as it is unquestionably the dominant cause of the increasing death-rate of the negro population in this country.

The different rate of prevalence and of mortality due, strictly speaking, to the tubercular infections in the white and colored race, has not been fully determined, and with a view of estimating the relative susceptibility of the races in this respect, at least in a limited field of observation, a special investigation was made with the help of our hospital records. Starting with the assumption that the relative susceptibility to pulmonary tuberculosis would be a fair index to a general predisposition to this infection, we began by collecting all the cases of incipient phthisis, phthisis florida, caseous phthisis, phthisis pulmonalis, chronic pneumonia, caseous pneumonia, and incipient, acute, general, and miliary tuberculosis which existed in the ten annual reports of the decennium from 1884 to 1894. The summary of this compilation is presented in

TABLE V. *Pulmonary tuberculosis. Years, 1884–1894.*

1884.	Whites,	244 cases,	99 deaths;	colored,	132 cases,	85 deaths.
1885.	"	283 "	103 "	"	121 "	77 "
1886.	"	223 "	94 "	"	139 "	86 "
1887.	"	193 "	76 "	"	145 "	78 "
1888.	"	219 "	94 "	"	148 "	89 "
1889.	"	184 "	80 "	"	141 "	92 "
1890,	"	211 "	82 "	"	160 "	92 "
1891.	"	193 "	70 "	"	185 "	104 "
1892.	"	217 "	104 "	"	234 "	126 "
1893.	"	192 "	84 "	"	198 "	107 "

Total, 3762: Whites, 2159—886 deaths; Colored, 1603—936 deaths.

	Whites, per cent.	Colored, per cent.
Actual prevalence	57.39	42.61
Actual mortality	41.04	58.39
Decennial prevalence . . .	4.78	8.33
	48 in 1000	83 in 1000
Decennial mortality . . .	1.96	4.87
	20 in 1000	49 in 1000

From an analysis of this table we see that all the cases of pulmonary tuberculosis grouped together aggregated 3762 consumptives, of whom 2159 were white and 1603 were colored. In proportion to the total hospital population for the decennium (see Table I.), the percentage of prevalence for the whites was 4.78 per cent. and for the colored 8.33 per cent., or nearly twice as great. As to the mortality, 886 cases or 1.96 per cent. of the white hospital patients died of tuberculosis, while 936, or 4.86 per cent., of the colored patients perished from the same cause.

It is plain, therefore, that according to our Charity Hospital statistics pulmonary tuberculosis is nearly twice as prevalent, and over three times as fatal, in the negro.

Taking up now the strictly surgical tuberculosis, outside of the bones, joints, and bursæ, which we shall consider separately, we incorporated in one table all the cases designated as tubercular peritonitis, tubercular meningitis, tubercular laryngitis, tubercular adenitis, scrofulous and strumous glands, tubercular and cold abscess, lupus and cutaneous tuberculosis, tubercular ulcers, and Pott's disease. The results are presented in

TABLE VI. *Surgical and other non-pumonary tuberculoses.*
Years, 1884–1894.

Year		Whites, cases		deaths		colored, cases		deaths	
1884.	Whites,	15	cases,	6	deaths; colored,	20	cases,	7	deaths.
1885.	"	5	"	3	" "	5	"	3	"
1886.	"	16	"	2	" "	9	"	4	"
1887.	"	10	"	3	" "	8	"	2	"
1888.	"	3	"	0	" "	6	"	0	"
1889.	"	9	"	1	" "	8	"	1	"
1890.	"	6	"	0	" "	5	"	1	"
1891.	"	17	"	2	" "	5	"	1	"
1892.	"	10	"	1	" "	9	"	0	"
1893.	"	18	"	4	" "	22	"	3	"

Total, 206: Whites, 109—22 deaths; Colored, 97—22 deaths.

	Whites, per cent.	Colored, per cent.
Actual prevalence	52.91	47.09
Actual mortality	20.18	22.68
Decennial prevalence . . .	0.241	0.504
	24 in 10,000	50 in 10,000
Decennial mortality . . .	0.049	0.114
	49 in 100,000	114 in 100,000

The synopsis of this table clearly shows that the diseases included under this category were more than twice as prevalent, and more than twice as fatal, in the colored population.

In attempting the comparative study of the important tubercular diseases of the bones, joints, and bursæ, we were immediately confronted by a serious difficulty presented by the classification of the cases, which in a great majority are simply designated by broad generic terms, such as caries, necrosis, periostitis, synovitis, arthritis, bursitis, etc., without reference to the cause, so that the nature of the specific infection, whether tubercular, syphilitic, gonorrhœal, traumatic, or simple pus infections, cannot be even approximately ascertained. Nevertheless, the relative prevalence of this class of affections without differentiation of cause is presented in the following table:

TABLE VII. *Diseases of the bones, joints, and bursæ. Years, 1884–1894.*

Whites.

Year.	Total.	Remaining Dec. 31st.	Discharged and died.	Died.
1884.	60	9	51	1
1885.	67	18	49	1
1886.	67	15	52	2
1887.	60	15	45	2
1888.	71	15	56	2
1889.	84	21	63	3
1890.	89	14	75	1
1891.	103	23	80	2
1892.	111	23	88	0
1893.	104	22	82	1
Total, ...			641	15

Colored.

Year.	Total.	Remaining Dec. 31st.	Discharged and died.	Died.
1884.	26	4	22	4
1885.	19	3	16	5
1886.	25	1	24	2
1887.	27	2	25	1
1888.	27	7	20	0
1889.	42	11	31	3
1890.	42	6	36	3
1891.	51	6	45	2
1892.	54	6	48	2
1893.	56	10	46	3
Total, ...			313	25

Total White and Colored cases, 954.

	Whites, per cent.	Colored, per cent.
Actual prevalence	67.19	32.81
Actual mortality	2.34	7 99
Decennial prevalence	1.42	1.63
	14 in 1000	16 in 1000
Decennial mortality	0.033	0.130
	3 in 10,000	13 in 10,000

According to this table the negroes are a little more liable to bone, joint, and bursal lesions than the whites (14 to 1000 whites; 16 to 1000 colored); and the deaths from the same lesions occur much more often than in the whites (3 to 10,000 whites; 13 to 10,000 colored). All of which is in harmony with the preceding data; though I must confess that my personal impression led me to believe that the rate of prevalence among the negroes would be much greater than that exhibited in the table. It is unfortunate that our records will not permit us to make an analysis of the various infections and of the special topographical distribution of the lesions in the bone, joint, and bursal cases, but there can be no possibility of doubt that the vast majority of the cases (in both races) that came to us for treatment for lesions of these parts were of tubercular origin.

It is generally admitted that in the white race the great tubercular infections may be stated to be in order of frequency: 1.

The pulmonary. 2. The lymphatic-glandular. 3. The osseous. 4. The articular lesions, etc. Without being able to present sufficient evidence as to the topographical distribution of the last three groups, I am satisfied by long observation that the colored race does not differ from the white in this respect.

As to the tuberculoses of the bones and joints, I am convinced that they constitute the majority of all the bone and joint cases, and that the comparative prevalence and mortality indicated in the table (VII.) is a reliable guide to the relative frequency and mortality caused by tuberculosis in this class of affections as exhibited separately in the two races.

The evidence that we have thus gathered from the records of the Charity Hospital of New Orleans undoubtedly confirms the impression and observations of all experienced writers on this subject. They affirm unmistakably the opinion that has been steadily gaining ground that the germ of this terrible plague has in the negro a most favorable soil for its development, and that its unchecked progress among them threatens their vitality as a race more than it does the individuals of the white population that live in similar conditions of environment. This may not be so apparent in rural districts, but it is unmistakable in metropolitan centres, where the struggle for existence is fiercest and where overcrowding under most insanitary conditions tends to overwhelm an inferior and unprepared race in its competitive struggle with the superior and dominant race. The question which naturally presents itself, Is the susceptibility of the negro to tuberculosis an original racial peculiarity or one that has been acquired by unfavorable conditions of environment? is difficult to answer conclusively.

It appears that tuberculosis is unknown among the savage tribes of black men that inhabit the imperfectly explored regions of equatorial Africa. It was not known on the coast of Guinea in the early days of slave trade. The colonization of the West African coast by white men led to the importation of the germ of tuberculosis, and the black race, which hitherto had never been exposed to its influences, soon began to exhibit its liability to the malign influence of the new contagion. In this

respect the negro race has shared the fate of other savage or primitive races which enjoyed an apparent immunity as long as they were not exposed to the specific agent of the disease which was brought to them by white explorers or colonists. It would appear from this that savage races, including the African negro, are not unlike wild animals, which, under conditions of domestication or under the artificial restraints of civilization, soon develop a morbid predisposition toward tuberculosis, which does not exist, or at least remains latent as long as they enjoy the pure air of the forest and the unrestrained freedom of the savage state. The negro, therefore, is not an exception to the general rule. But, in addition to the susceptibility which he displays in common with other primitive or savage races, he appears to be even a more favorable culture medium for the bacillus of tuberculosis than other races when placed under similar conditions of environment. This is true even where the telluric and climatic conditions are the most congenial to the race. Thus it is reported that in the British possessions of Sierra Leone (west coast of Africa), the mortality of the English garrison from pulmonary diseases (of which consumption is the most important factor) is 4.9 per 1000, while that of the negro population is 6.3 per 1000 (Bordier). In Senegal, the French government reports indicate that tuberculosis is exceedingly frequent and fatal among the negroes. According to Bordier's compilation of English statistics, furnished by the government reports and other sources (*La Geographie Médicale*, Paris, 1884, p. 473), the mortality and morbidity of the negro from consumption rapidly increase when removed from his native climate to other countries even when situated in the same isothermal lines.

Thus, the English and negro mortality from phthisis on a basis of 1000 deaths is proportionally stated as follows:

	English.	Negroes.
Jamaica	7.5	10.3
Dominica	8.3	16.8
Guiana	6.4	17.9
Ceylon	4.9	10.5
Gibraltar	5.3	43.0

Here we find different varieties of negroes manifesting everywhere the same greater mortality from this infection. The enormous increase in the death-rate in the cooler climate of Gibraltar is remarkable.

Wherever the negro is compared with other races the greater mortality from tuberculosis in this race becomes apparent. Quoting from Bordier again (*l. c.*), we find that in Ceylon the relative mortality from phthisis for every 1000 of population is exhibited as follows:

Natives	1.6
Malays	3.6
British whites	4.1
Negroes	10.5

In Peru, where phthisis is a very prevalent disease, it is not equally fatal among the various elements of the population. Here the Indians are the least affected. The Europeans are more severely affected, though to a less extent than the descendants of the old Spanish conquerors, who, living in luxury and indolence, have apparently degenerated and are less resisting than the late European emigrant. But the negroes here, as elsewhere, pay the heaviest tribute. Thus in 100 deaths caused by pulmonary phthisis, we find the death-rate distributed as follows:

Indians	1.7
Indians and white mestizos (mixed breeds)	13.5
Whites	34.3
Negroes	48.5

Tuberculosis appears also to be very frequent and fatal among Australian negroes (Bordier).

In the United States the same result is found. Here again, as elsewhere, tuberculosis is the dominant factor in the mortality-rate, claiming at least one-sixth of the deaths from all causes. According to the census, the total number of deaths during the census year (1890) was 91,270, being the greatest number reported as due to any single cause of death (vol. xii. p. lviii.).

According to this document the great majority of deaths from consumption occurs between the ages of 15 and 65; the greatest proportion in any decennium occurred between the ages of 20 and 30. "The same group of ages in these regions, where distinction of color and percentage are made, the proportions are: for whites, in each 1,000,000 deaths, males, 242,842—females, 302,046; for colored, males, 248,179—females, 326,636; for those of Irish parentage, males, 309,507—females, 375,636; and for those of German parentage, males, 249,498—females, 254,958. From these figures it would seem that the proportion of deaths from this cause in the colored race is but slightly greater than in the whites, and that it is greatest of all in the Irish. At ages under 15 a *great excess of deaths* from this cause is reported in the colored race." (Vol. xii. p. lix.)

With Dr. Eugene Rollin Corson, whose valuable contribution on the vital equation of the colored race I have already referred to, I believe that these figures do not give even an approximate idea of the real truth in this matter: "The census admits the imperfect returns from the colored population, and the only returns from registration cities which give comparative mortality for the two races are Louisville, Washington, Richmond, Baltimore, New Orleans, and Charleston, which yield returns inadequate to attempt anything like an accurate, comprehensive report."

The difference in the susceptibility in the races is also shown in the comparative statistics furnished by the white and negro troops that served in the Federal Army during the late Civil War, from 1861 to 1865. As stated by the authors of the *Medical and Surgical History of the War*, pulmonary tuberculosis caused 0.39 per cent. of the deaths among the white troops and 0.91 per cent. among the colored during the four years.

Evidence to the same effect is presented by Surgeon S. T. Armstrong, of the U. S. Marine Hospital, who collected and compared the statistics of the Marine Hospital at Memphis, for the quinquennium 1881–86. His figures are based upon a study of 403 white and 526 negro patients treated in the hospital. Of these 9.1 per cent. of the white suffered from respi-

ratory diseases (including tubercle) and 14 per cent. among the negroes; with a mortality of 22.4 per cent. among the former and 24.3 per cent. among the latter. In the out-clinic, the same diseases called for treatment in 10.6 per cent. among the white and 8.7 per cent. among the negroes. This difference is well explained by Dr. Armstrong on the ground of the aversion that the negro entertained for a hospital. If he feels indisposed, instead of seeking office treatment, he either disregards his malaise or uses the domestic remedy suggested by some old negress. If his illness prove more serious, he will often remain in a weather-bounded hut exposed to wind and rain which enter through numerous cracks and crannies, postponing from day to day his application for admission to the hospital. This peculiarity of the negro is confirmed by all observers. A notable exception to the generally accepted opinion that the negro is more susceptible to tuberculosis, and which deserves special mention on account of the unusual opportunities for observation and the reliability of the observer, is the opinion of Dr. Robert Reyburn, of Washington, D. C. He briefly discusses this question in a paper entitled "The Type of Diseases Among the Freed People (Mixed Negro Races) of the United States, Based upon the Analysis of the Consolidated Reports of over 430,466 of Sick and Wounded Free People (Mixed African Races) and 22,053 of the White Refugees Under Treatment from 1865 to June 30, 1872, by Medical Officers of the Bureau of Refugees, Freedmen, and Abandoned Lands" (*Medical News*, December 2, 1893). According to these returns the total number of cases of scrofula and pulmonary tuberculosis together was only 11,986, or a little less than 6 per cent. of the total number of (colored) cases under treatment. He remarks: "So far from these two diseases being almost universally prevalent among the colored people of the Southern States, these people seem to be no more subject to them than the whites who live under like conditions in our large cities. These diseases do not seem to be any more destructive to the colored race than to the white."

While I do not question the absolute accuracy of the figures

presented in this valuable report, it is plain that the conclusions which they furnish are contradicted by the almost unanimous consensus of medical statistics and opinions in the South. The government reports of the mortality from phthisis of the negro troops which served during the Civil War tell an entirely different story, as is shown in a preceding paragraph. I am satisfied that further experience will confirm the mass of evidence that has been thus far accumulated on the question.

That the conditions of social and hygienic environment exercise an enormous influence in determining a predisposition to tuberculosis is undeniable in both races. But it becomes more apparent in the colored race when we contrast the statistics of mortality of the slave population before emancipation and with those of the free colored population of the present day. To the question propounded to Dr. Cartwright, in 1859: "Is not phthisis very common among the slaves of the Southern States and unknown among the native Africans at home?" he replied: "That phthisis, so far from being common among the slaves of the slave States, *is very seldom met with.*" He asserts that the cachexia Africana, "dirt eating," of the English, and "mal d'estomac," of the French, commonly called negro consumption, is a very different malady from phthisis pulmonalis. The first is a form of parasitic anæmia, which is now rarely met with in the United States. The testimony of Cartwright, who must be regarded as an authority in this matter (see reference to both of his papers in the Bibliography)—even if he is an extremist in many points—is confirmed by all his contemporaries. Furthermore, the striking statistics presented from the mortuary records of Savannah from 1854 to 1846, by Dr. E. R. Corson, (the vital equation of the negro, table, p. 161, *l. c.*), prove conclusively that prior to the freedom of the African race in the United States their death-rate was smaller than that of the white race, and emphatically confirms the opinion, expressed by all the older observers, that this great and increasing cause of negro mortality—tuberculosis—was very much less active than in the present colored population. This would appear to

indicate, also, that since the race has been thrown upon its own resources (since 1860) the colored population has undergone marked physical deterioration, if its greater liability to tuberculosis can be regarded as an index to its vital resistance.

While it is impossible to present statistical evidence to indicate the status of the mulatto in reference to his liability to tuberculosis, it is unanimously agreed by all observers of experience that the susceptibility of the mixed breed is greater than that of either the pure white or the negro. And, furthermore, that it is probably due to the constantly increasing fusion of the races in this country that this increasing ratio of morbidity and mortality in the contemporary colored population is so manifest.

From the preceding considerations we would now conclude:

1st. That the negro population of the present day in the United States is more liable, and *fatally* liable, to tuberculosis in all its forms, than the white population.

2d. That the precise reason for this greater susceptibility has not been positively ascertained, but that it is probably due to several factors: (*a*) greater inherent racial susceptibility; (*b*) acquired predisposition, caused by (*c*) all the fostering elements of a bad physical and social environment; and (*d*) miscegenation with the white race under the worst physical and moral conditions.

3d. That the inherent ethnic predisposition is not to be considered of as much importance as the *acquired* predisposition, since the history of the colored people in the United States proves that this excessive liability to tuberculosis is only a comparatively late manifestation, which began practically with the declaration of the Civil War, and that prior to this (1860) the slave population enjoyed a relative immunity from tuberculosis.[1]

SYPHILIS. Another universal infection which is generally believed to be more prevalent though less fatal among the colored

[1] The writer is gratified to note that since this paper was written the truth of the preceding conclusions has been incontrovertibly supported to the point of complete statistical demonstration by Mr. Hoffmann in his masterly essay on the American negro, previously quoted. The reader is referred to pp. 69 to 85 for evidence on this most important cause of negro mortality and degeneracy.

race is syphilis. At one time it was stoutly maintained, and is still this day, by many able observers (for instance, Bordier), that the poison of syphilis had been essentially modified by the peculiarities of the negro constitution; that, in fact, a new type of syphilis had been created by the implantation of this infection in the African constitution. The highly differentiated disease of the negro, known as "framboesia," "yaws," "pian, or bubas," was supposed to be nothing more than syphilis modified by the negro constitution. A study of the history of yaws and of syphilis, as these diseases have been known on the American Continent clearly proves that this impression is erroneous, and that the two diseases are entirely distinct and separate morbid entities. Yaws was first brought to this country by the slaves from Africa; it prevailed extensively among the negro population as long as the slave trade existed and fresh reinforcements came from the mother country. With the cessation of the slave trade the prevalence of yaws rapidly declined, so that at present a case of this disease is one of the rarest of curiosities, even in the most densely settled negro districts. In addition to this, the researches of Nicholls, Numa Rat, in the English Antilles, conclusively demonstrate the specificity of this disease by the discovery of a definite micro-organism as well as by establishing its clearly specific and well-differentiated lesions and clinical history. On the other hand, syphilis has been rapidly spreading throughout the colored population of the United States, as is demonstrated by the frequency of its lesions, which are plainly identical with those of the white race. That syphilis manifests itself in the negro as it does in the white man cannot be denied, and the only question presented by comparative pathology is that of the comparative susceptibility and virulence of the lesions in the two races. As previously stated, it is generally believed, and such was my former impression, that while syphilis is more prevalent or widely diffused in the colored population, it is less fatal in this race, at least, in the individuals of the pure negro type. The mulatto, on the other hand, is not only more susceptible, but more liable to the virulent manifestations of this disease.

The statistics of the Charity Hospital of New Orleans unfortunately do not separate the pure black from the mulatto; the pure negro type dominates, however, in our hospital, so that our reports furnish in this respect a fairly reliable index of the prevalence and fatality of this disease in the race.

TABLE VIII. *Syphilis. Years, 1884–1894.*

Year		Cases		Deaths			Cases		Deaths	
1884.	Whites,	160	cases,	11	deaths;	colored,	78	cases,	6	deaths.
1885.	"	122	"	5	"	"	90	"	4	"
1886.	"	128	"	4	"	"	75	"	3	"
1887.	"	108	"	2	"	"	43	"	7	"
1888.	"	132	"	1	"	"	67	"	4	"
1889.	"	147	"	6	"	"	91	"	10	"
1890.	"	105	"	6	"	"	42	"	3	"
1891.	"	114	"	4	"	"	79	"	7	"
1892.	"	129	"	3	"	"	162	"	7	"
1893.	"	139	"	7	"	"	246	"	13	"

Total, 2257: Whites, 1284—49 deaths; Colored, 973—64 deaths.

	Whites, per cent.	Colored, per cent.
Actual prevalence	56.89	43.11
Actual mortality	3.81	6.58
Decennial prevalence	2.84	5.06
	28 in 1000	51 in 1000
Decennial mortality	0.108	0.333
	11 in 10,000	33 in 10,000

We glean from the summary of this table that the ratio of prevalence is 2.84 per cent. among the whites, or 28 in 1000; and 5.06 per cent., or 51 in 1000 colored, or nearly twice as frequent among the negroes.

As to the mortality, we find that the deaths caused by syphilis are exactly three times greater in the colored than in the white hospital population.

Thus our hospital statistics, for the last ten years, apparently confirm the generally accepted opinion that syphilis is more widely diffused among the colored population, but, contrary to the opinion of many, is decidedly more fatal among them. This greater prevalence and fatality I attribute solely to greater in-

difference to disease in general, to greater ignorance, to miscegenation, to greater poverty, and greater neglect.

I have not attempted to determine by our hospital records the relative frequency of the most characteristic syphilitic lesions in the races, but have no hesitation in accepting as a practical approximation the statistical results obtained by Surgeon Henry R. Carter in his paper "On the Manifestations of Syphilis Among Negroes" (*Annual Report of the Supervising Surgeon of the U. S. Marine Hospital* for 1883), which is based on the comparative study of 231 individuals of each race.

The patients were of the same class, so that they were in nearly the same surroundings. Dr. Carter states that the lesions are the same in both races. The same tissues are affected, and may be similarly affected, but the frequency with which certain tissues are attacked and the frequency with which a certain lesion appears differ markedly for the two races.

No record was made of the initial lesions of syphilis, no difference being observed in that respect between the two races, except that, having a long prepuce and paying less attention to cleanliness, the preputial chancre in the negro was accompanied more frequently with balanitis.

Dr. Carter's Table.

Number of patients: Negro, 231; White, 231.

	Negro.	White.
1. Enlargement of lymphatic glands	102	59
2. Syphilitic fever	0	12
3. Skin lesions	10	28
4. Mouth and pharynx, superficial	6	14
5. Suppurating bubo, inguinal	39	5
6. Iritis	12	11
7. Orchitis	1	6
8. Synovitis	21	2
9. Palate and fauces, deep ulcerations	0	5
10. Gummata	4	12
11. Periostitis and nodes	8	15
12. Caries	0	4
13. Pains in bones and muscles	194	112

Dr. Carter concludes by stating that syphilis pursues a mild course in the negro race, milder than in the white. "It is

marked by but few cutaneous lesions, and these are mainly pustular; the mucous membranes are rarely, and then slightly affected; nodes and periostitis rare; caries and deep ulceration rare in early syphilis, while synovial membranes are much more vulnerable. The inguinal glands also frequently suppurate" [from associate balanitis and mixed infection.—R. M.]. Among the causes tending to produce a milder type than in the whites with whom they are compared, the author attributes some influence to comparative sobriety, freer action of the skin, and probably some racial immunity.

As shown in our Table No. VIII., the more extensive statistics of our hospital plainly contradict the opinion that the disease is milder in the negro; but many of the facts presented by Dr. Carter as to the intensity and distribution of certain lesions are in harmony with our experience. The visceral and arterial lesions of syphilis are growing more frequent in the negro; they are, together with alcoholism and hard labor on the levees, the most fruitful causes of cardiac and vascular and other serious complications. There is also no doubt that the statistics compiled by Dr. Carter are more favorable than usual, because, as he suspects, "the worst cases with them, more than with the whites, are winnowed out of the class (roustabouts) from whom these statistics are gathered, the mates having a good deal of consideration for a broken-down river man, if white, and favoring him, while a negro man stands only on his merits as a worker. On no other ground can I explain the absolute absence of bone lesions in a race as strumous as this."

This, we believe, is partially if not chiefly the explanation of the difference between Dr. Carter's statistics and our own. Nevertheless, we believe that if we could entirely eliminate the mulatto from our calculations, the results would, indeed, prove that, all other conditions being equal, syphilis is less virulent and less fatal in the pure negro than in the white.

TETANUS. Comparative pathologists all over the world unanimously agree that tetanus is more common and more fatal among the negroes than among the whites. Here, again, our hospital and private experience appears to confirm this belief.

TABLE IX. *Tetanus. Years, 1884–1894.*

Year	Whites, cases	deaths	Colored, cases	deaths
1884.	5	3	3	2
1885.	8	7	6	4
1886.	4	4	2	2
1887.	5	5	8	8
1888.	8	7	2	2
1889.	4	3	6	4
1890.	5	4	7	6
1891.	6	4	5	3
1892.	4	2	7	6
1893.	3	2	9	7

Total, 107: Whites, 52—41 deaths; Colored, 55—44 deaths.

	Whites, per cent.	Colored, per cent.
Actual prevalence	48.60	51.40
Actual mortality	78.85	80.00
Decennial prevalence	0.115	0.286
	12 in 10,000	29 in 10,000
Decennial mortality	0.091	0.229
	9 in 10,000	23 in 10,000

According to the summary of this table, tetanus occurs three times more often among the negroes than among the whites.

As to the mortality, we find that in both races it is frightful; but still the colored lose fully two and a half as many of their race from this disease.

According to the Tenth Census, the proportion of deaths from tetanus and trismus nascentium are, for the whites 33.5 and for the colored 39.3 per 1000 deaths from known causes. Corson's Savannah statistics show that the rate of mortality and prevalence are very much higher for the colored race, and, with him, we believe that the figures of the census are far below the real estimate. Recent, though limited, experience with the antitoxin treatment of tetanus proves that our hospital mortality from this disease will be very materially reduced in both races by this treatment.

Having sufficiently discussed the general infections of special importance, we shall now briefly consider from the comparative point of view the various surgical diseases of the splachnic cavi-

ties, the abdomen, the thorax, and the cranium, which are of interest to the student of racial pathology.

Surgical Diseases Attributable to Intestinal, and Especially Colonic, Infection.

Suppurative Hepatitis or Abscess of the Liver. Under this title we at once recognize one of the most frequent and formidable surgical diseases of tropical and sub-tropical regions. A comparison of the statistics of our hospital with those of similar institutions in the Antilles and in Africa, where the influence of equatorial conditions upon racial pathology can be studied with greatest advantage, is of interest in showing that civilization and climate have diminished the universally admitted immunity which the negro enjoys from intestinal infections in his own habitat. Knowing, as we all do, that malaria and infective diarrhœa and dysentery are the most potent predisposing causes of suppurative hepatitis, it will be well to glance at the status of the negro race of the present generation with reference to their liability to these diseases.

The negro once could boast of his unsusceptibility to malaria and live secure in regions fatal to the white man. This is still true in Africa; but in this country this exemption has been growing less and less complete, and to-day the colored mortality from miasmatic diseases is very much greater than it once was (Corson). The remarkable, though contradictory, reports of Dr. R. Reyburn, already referred to in connection with tuberculosis, are also of special interest and significance, as they are based upon the study of a total of 115,855 cases of malarial fevers of various types that were treated in the negroes refuged in Federal camps during the war. From this extensive basis it was ascertained that malarial fevers of various types prevailed among the freed (colored) people to the extent of 26.91, or nearly 27 per cent. In the white refugees, under similar conditions, the ratio of malarial prevalence was, as compared to the number of all other diseases treated, 26.78 per cent. This corresponds very closely with the evidence furnished by the authors of the *Medical and*

Surgical History of the Civil War, which tells us that 24.17 per cent. of the total colored troops under treatment were cases of malarial fevers.

It is not surprising, therefore, that Reyburn should conclude that whatever may be the fact in Africa, it is certain that the negro of pure or mixed blood, as naturalized in this country, is not exempt from the operations of the causes that induce remittent and intermittent fevers. The remarkable similarity in the ratios of the white and colored patients under treatment would indicate the inevitable conclusion that there is very little difference, if any, between the susceptibility of the colored and the white people of the Southern States to the attacks of intermittent and remittent fevers.

More directly concerned than malaria in the production of suppurative disease of the liver is inflammatory disease of the bowels, and especially dysentery, and the frequency of these conditions in the races must be considered as a preliminary to the study of their relative susceptibility to hepatic purulent infection. It is to be regretted that the modern classification of diarrhœal and dysenteric conditions, according to a bacteriological etiology, cannot be given, and that we must satisfy ourselves with the results obtained by a general grouping of all the cases of diarrhœa and dysentery irrespective of etiological type. In these tables only the specific (*e.g.*, tubercular and typhoid) types of enteric diseases have been eliminated.

TABLE X. *Diarrhœa. Years, 1884–1894.*

1884.	Whites,	464	cases,	71	deaths;	colored,	118	cases,	27	deaths.
1885.	"	230	"	59	"	"	71	"	31	"
1886.	"	175	"	44	"	"	45	"	18	"
1887.	"	166	"	41	"	"	59	"	28	"
1888.	"	155	"	43	"	"	50	"	19	"
1889.	"	146	"	30	"	"	55	"	26	"
1890.	"	260	"	60	"	"	89	"	37	"
1891.	"	294	"	77	"	"	76	"	20	"
1892.	"	347	"	61	"	"	203	"	29	"
1893.	"	301	"	37	"	"	140	"	27	"

Total, 3444: Whites, 2538—523 deaths; Colored, 906—262 deaths.

	Whites, per cent.	Colored, per cent.
Actual prevalence	73.69	26.31
Actual mortality	20.61	28 92
Decennial prevalence . . .	5.62	4.71
Decennial mortality . . .	1.16	1 36
	12 in 1000	14 in 1000

According to this table diarrhœal conditions are a little more prevalent in the white, and yet more fatal in the negro.

TABLE XI. *Dysentery. Years, 1884–1894.*

1884.	Whites,	146	cases,	19	deaths;	colored,	65	cases,	13	deaths.
1885.	"	96	"	20	"	"	43	"	11	"
1886.	"	87	"	16	"	"	39	"	12	"
1887.	"	77	"	17	"	"	42	"	14	"
1888.	"	101	"	24	"	"	32	"	5	"
1889.	"	92	"	14	"	"	36	"	14	"
1890.	"	60	"	12	"	"	40	"	10	"
1891.	"	103	"	30	"	"	33	"	12	"
1892.	"	62	"	11	"	"	30	"	9	"
1893.	"	84	"	19	"	"	103	"	28	"

Total, 1371: Whites, 908—182 deaths; Colored, 463—128 deaths.

	Whites, per cent.	Colored, per cent.
Actual prevalence	66.23	33.77
Actual mortality	20.04	27.65
Decennial prevalence . . .	2.01	2.41
Decennial mortality . . .	0.403	0 665
	40 in 10,000	66 in 10,000

In the more important tabulations of the dysenteric cases the differences between the races are very slight, viz., 2.01 per cent. of the white hospital population, and 2.41 per cent. of the colored population. The mortality, however, is, as usual, much greater, and, more strikingly expressed, it is 40 in 10,000 for the white, and 66 in 10,000 for the negro. It thus appears that the relative immunity enjoyed by the negro from colonic disease in Africa and other tropical countries is not lost in the United States, and that bowel complaints, like malaria, claim at least

the same tribute from the colored that they do from the white race.

Now, as to the most serious visceral sequel of these enteric infections, suppurative hepatitis, we see that suppuration in the liver takes place almost as often as in the white race, though the mortality is, as usual, considerably in excess of the white element. The results are exhibited in

TABLE XII. *Abscess of liver. Years, 1884–1894.*

Year	Whites, cases	Whites, deaths	Colored, cases	Colored, deaths
1884.	Whites, 8 cases,	4 deaths;	colored, 6 cases,	3 deaths.
1885.	" 5 "	3 "	" 3 "	2 "
1886.	" 7 "	3 "	" 4 "	2 "
1867.	" 7 "	1 "	" 1 "	1 "
1888.	" 7 "	3 "	" 1 "	0 "
1889.	" 13 "	5 "	" 2 "	2 "
1890.	" 18 "	9 "	" 6 "	4 "
1891.	" 16 "	7 "	" 8 "	6 "
1892.	" 27 "	15 "	" 8 "	4 "
1893.	" 22 "	6 "	" 13 "	7 "

Total, 182: Whites, 130—56 deaths; Colored, 52—31 deaths.

	Whites, per cent.	Colored, per cent.
Actual prevalence	71.43	28.57
Actual mortality	43.08	59.62
Decennial prevalence . . .	0.288	0.270
	29 in 10,000	27 in 10,000
Decennial mortality . . .	0.124	0.161
	12 in 10,000	16 in 10,000

In order to further clear up this question of the relative predisposition to hepatic inflammation, we tabulated all the cases of acute non-suppurative hepatitis exclusive of other diseases of the liver, and obtained the result as shown in the following table:

TABLE XIII. *Non-suppurative hepatitis. Years, 1884–1894.*

1884.	Whites,	8	cases,	0	deaths;	colored,	1	case,	0	deaths.
1885.	"	7	"	1	"	"	3	"	1	"
1886.	"	6	"	0	"	"	2	"	0	"
1887.	"	7	"	1	"	"	1	"	0	"
1888.	"	4	"	1	"	"	1	"	0	"
1889.	"	14	"	2	"	"	1	"	0	"
1890.	"	3	"	0	"	"	0	"	0	"
1891.	"	12	"	2	"	"	3	"	1	"
1892.	"	7	"	0	"	"	1	"	0	"
1893.	"	9	"	0	"	"	7	"	0	"

Total, 97: Whites, 77—7 deaths; Colored 20—2 deaths.

	Whites, per cent.	Colored, per cent.
Actual prevalence	79.38	20.62
Actual mortality	9.09	10.00
Decennial prevalence	0.170	0.104
	17 in 10,000	10 in 10,000
Decennial mortality	0.015	0.010
	15 in 100,000	10 in 100,000

According to this table, simple acute hyperæmic, but non-suppurative, inflammations of the liver (some of which probably terminated finally in abscess) are less frequent than in the white race.

The combined results of the preceding tables would indicate that while enteric and hepatic infections are less common in the white population of the Southern United States than in the torrid region of the tropics, both in Africa and the Antilles, it is apparent that the negro population has not been benefited by the change to this country, because, instead of increasing its original immunity it has nearly lost it, and is now practically on equal terms with the more predisposed white race.

APPENDICITIS. Another surgical condition of absorbing and growing interest is appendicitis. Here the infection is directly associated in the majority of cases with the virulent forms of the bacillus coli. In view of the presumably greater development of lymphoid tissue in the negro we would expect to see

this organ more frequently diseased in this race than in the white. We must confess, however, that our search in the hospital records and in the dissecting-rooms of Tulane University has been disappointing insomuch as any remarkable revelations as to greater frequency are concerned.

The most remarkable fact disclosed by our inquiry is the comparative rarity of this disease in our hospital experience as compared with its frequency in similar institutions in the North. While appendicitis did not exist in our reports, at least by this name, ten years ago, and, in fact, only occurs in the last few years of the last decade, it is curious that the names of the diseases by which this condition was designated, viz., typhlitis, perityphlitis, iliac abscess, typhlitic abscess, cœcitis, pericœcal abscess, etc., are also comparatively rare. It is also remarkable that, notwithstanding the fact that the hospital staff has been wide awake on this subject, there were only six cases of appendicitis recorded for 1893, and four cases for 1894. Of these three of the patients were white and one colored. One death is recorded, and that was a white man.

Considering that during the same year a total of 9064 white and colored patients were admitted, and that nearly 20,000 consultations were given in the out-clinic, this scarcity of cases of appendicitis is rather surprising.[1]

In order to study this condition as thoroughly as our statistics would permit I have incorporated in the table on appendicitis all the cases reported under the old names. In spite of

[1] The Eighteenth Annual Report of the Roosevelt Hospital, New York, for 1889, which I happen to have on hand, shows that in a total of 2754 admitted patients there were twelve cases of appendicitis, including two deaths.

In the Seventeenth Annual Report of the Montreal General Hospital for 1891–92, I find that of a total of 2501 cases admitted during the year there were fifteen cases of appendicitis, of which seven died. These institutions are quoted simply because the reports happen to be at hand; they give, I believe, a fair idea of the prevalence of appendicitis in Northern instituiions at the time when the reports were published.

According to the report of the Board of Health of New York City 129 persons died in New York City in 1892 of appendicitis, of whom only one was colored (Hoffmann).

Since writing the above, I have observed two cases of well-marked appendicitis in negroes in the hospital. They both walked into the out-clinic of the hospital in October, 1896.

careful search we have been able to collect only thirty-four cases reported during the last ten years. The deductions to be drawn from such inadequate material are, of course, very unsatisfactory, and especially so from the comparative racial point of view.

According to this table appendicitis occurs in our hospital practice less often and is less fatal in the negro.

TABLE XIV. *Appendicitis. Years, 1884–1894.*

Year	Whites, cases	deaths	Colored, cases	deaths
1884.	Whites, 1 case,	0 deaths;	colored, 0 case,	0 deaths.
1885.	" 0 "	0 "	" 0 "	0 "
1886.	" 1 "	0 "	" 1 "	0 "
1887.	" 2 "	1 "	" 2 "	0 "
1888.	" 2 "	1 "	" 1 "	0 "
1889.	" 1 "	1 "	" 1 "	0 "
1890.	" 6 "	2 "	" 2 "	2 "
1891.	" 3 "	0 "	" 1 "	0 "
1892.	" 3 "	1 "	" 1 "	0 "
1893.	" 6 "	1 "	" 0 "	0 "

Total, 34: Whites, 25—7 deaths; Colored, 9—2 deaths.

	Whites, per cent.	Colored, per cent.
Actual prevalence	73 53	26.47
Actual mortality	28.00	22.22
Decennial prevalence . . .	0.055 55 in 100,000	0.047 47 in 100,000
Decennial mortality . . .	0.015 15 in 100,000	0.010 10 in 100,000

In order to eliminate as much as possible all causes of error by the inclusion of disguised forms of this disease under other diagnoses, we also prepared a table of all the recorded cases of peritonitis from all causes except the post-operative and the tubercular. The results are presented in the following table:

TABLE XV. *Peritonitis. Years, 1884–1894.*

Year										
1884.	Whites,	4 cases,	1 death;		colored,	6 cases,		4 deaths.		
1885.	"	4	"	3	"	"	2	"	1	"
1886.	"	7	"	5	"	"	4	"	4	"
1887.	"	4	"	3	"	"	4	"	4	"
1888.	"	2	"	2	"	"	4	"	3	"
1889.	"	2	"	1	"	"	1	"	1	"
1890.	"	4	"	3	"	"	5	"	4	"
1891.	"	10	"	9	"	"	6	"	3	"
1892.	"	4	"	3	"	"	8	"	7	"
1893.	"	4	"	3	"	"	5	"	5	"

Total, 90: Whites, 45—33 deaths; Colored, 45—36 deaths.

	Whites, per cent.	Colored, per cent.
Actual prevalence	50.00	50.00
Actual mortality	73.33	80.00
Decennial prevalence . . .	0.100	0.234
	100 in 100,000	234 in 100,000
Decennial mortality . . .	0.073	0.187
	73 in 100,000	187 in 100,000

PERITONITIS. According to this table, the actual number of admitted cases of peritonitis in the white and colored were almost the same. But when the proportion to white and colored hospital population for the decennium is established then we observe that the ratio of prevalence plainly indicates that peritonitis existed twice as often in the colored as in the white, and that the negro mortality was also twice as great. While we are not justified in drawing any deductions from this table in regard to appendicitis, it is nevertheless permissible to conclude that the susceptibility of the peritoneum to infection is certainly as great, if not more so, in the negro than in the white subject.

PULMONARY AND PLEURAL INFECTIONS.

After the intestinal and peritoneal infections of surgical interest we can appropriately pass to the consideration of the surgical diseases of the lungs and pleuræ. A panoramic view of the relative frequency and fatality of the diseases which are

classified as the diseases of the respiratory organs from all causes, including all conditions, may be obtained by glancing at the following table:

TABLE XVI. *Diseases of the respiratory organs. Years, 1884–1894.*

Whites.

Year.	Total.	Remaining Dec. 31st.	Discharged and died.	Died.
1884.	540	53	487	149
1885.	558	65	493	152
1886.	462	59	403	124
1887.	401	75	326	105
1888.	440	50	390	122
1889.	442	55	387	133
1890.	434	48	386	128
1891.	456	49	407	103
1892.	495	55	440	153
1893.	450	42	408	128
Total,			4127	1297

Colored.

Year.	Total.	Remaining Dec. 31st.	Discharged and died.	Died.
1884.	282	14	268	121
1885.	232	11	221	115
1886.	258	17	241	112
1887.	241	7	234	111
1888.	252	8	244	120
1889.	259	25	234	117
1890.	272	19	253	124
1891.	322	26	296	134
1893.	427	33	394	174
1893.	397	22	375	155
Total,			2760	1283

Total White and Colored cases, 6887.

	Whites, per cent.	Colored, per cent.
Actual prevalence	59.92	40.08
Actual mortality	31.43	46.49
Decennial prevalence	9.13	14.35
Decennial mortality	2.87	6.67
	29 in 1000	67 in 1000

According to this table the diseases of these organs were much more frequent and nearly three times as fatal in the colored population. This preponderance we believe to be due in part to tuberculosis, and which we have already considered in dealing with the surgical tuberculoses, and which we found to be both more frequent and more fatal in the negro.

Leaving out of consideration the tubercular diseases of the lungs, which are not of special surgical interest, we shall take up the diseases of the pleura which are of more immediate surgical importance.

If we exclude the tubercular infection of the lungs and pleuræ, which has already been sufficiently considered, we will find that the next most important type of infection is the pneumococcal. In order to determine the relative susceptibility of the races to this form of microbial parasitism, we have prepared a table which embraces all the cases of pneumonia (exclusive of the caseous or tubercular) that are reported during the decennium.

TABLE XVII. *Pneumonia. Years, 1884–1894.*

Year										
1884.	Whites,	85	cases,	32	deaths;	colored,	63	cases,	29	deaths.
1885.	"	86	"	22	"	"	53	"	25	"
1886.	"	54	"	16	"	"	50	"	16	"
1887.	"	47	"	19	"	"	43	"	19	"
1888.	"	35	"	10	"	"	51	"	18	"
1889.	"	61	"	32	"	"	49	"	20	"
1890.	"	50	"	27	"	"	72	"	24	"
1891.	"	61	"	20	"	"	66	"	21	"
1892.	"	70	"	36	"	"	86	"	40	"
1893.	"	68	"	30	"	"	102	"	46	"

Total, 1252: Whites, 617—244 deaths; Colored, 635—258 deaths.

	Whites, per cent.	Colored, per cent.
Actual prevalence	49.28	50.72
Actual mortality	39.55	40.63
Decennial prevalence	1.37	3.30
	14 in 1000	33 in 1000
Decennial mortality	0.540	1.34
	54 in 10,000	134 in 10,000

According to this table, pneumonia is nearly three times as prevalent and three times as fatal in the colored population.

This local experience confirms the more general conclusion of the last census, which states: "The comparative excess of mortality from pneumonia in the colored race in the South has been known for a long time."

Corson's statistics, collected from the mortuary records of Savannah, are still more emphatic, and are strikingly similar to those of our Charity Hospital. This author says "Here (in Savannah) in nine years we have had 147 cases of pneumonia among the whites and 430 among the colored; in other words, one white dies to three colored."

With this demonstration of the greater liability of the negro to pneumococcal infection we are better prepared to study the liability of the colored race to pleural inflammation. While it is conceded that the majority of the chronic pleurises with effusion that do not suppurate are largely associated with some latent or active form of tuberculosis or, at least, occur more often in strumous subjects, it is generally recognized that the acute dry, and especially the acute suppurative types, are generally metapneumonic, and are chiefly ascribable to simple pneumococcal or mixed infection. As no bacteriological diagnosis is given in the reports we are compelled to classify all the pleural infections into two great groups: 1. The simple, non-suppurative; and 2. The suppurative pleurises or empyemata.

The susceptibility of the races to simple pleurisy are indicated in the following table:

TABLE XVIII. *Pleurisy. Years, 1884–1894.*

Year		Whites cases		Whites deaths			Colored cases		Colored deaths	
1884.	Whites,	39	cases,	5	deaths;	colored,	43	cases,	7	deaths.
1885.	"	30	"	5	"	"	21	"	6	"
1886.	"	25	"	2	"	"	22	"	4	"
1887.	"	19	"	1	"	"	9	"	1	"
1888.	"	25	"	5	"	"	16	"	1	"
1889.	"	23	"	5	"	"	8	"	1	"
1890.	"	23	"	7	"	"	15	"	1	"
1891.	"	20	"	1	"	"	19	"	4	"
1892.	"	36	"	4	"	"	33	"	3	"
1893.	"	32	"	4	"	"	25	"	1	"

Total, 483: Whites, 272—39 deaths; Colored, 211—29 deaths.

	Whites, per cent.	Colored, per cent.
Actual prevalence	43.69	56.31
Actual mortality	14.34	13.74
Decennial prevalence . . .	0.602	1.097
	6 in 1000	11 in 1000
Decennial mortality . . .	0.0863	0.1507
	86 in 100,000	151 in 100,000

The synopsis of this table indicates that all the conditions reported as pleurisy are as a class more frequent and more fatal (nearly twice as fatal) in the colored population.

Empyema or suppurative pleurisy, which is of greater interest to the surgeon, is nearly *twice* as frequent, and more than *three* times as fatal in the colored patients.

TABLE XIX. *Empyema. Years, 1884–1894.*

Year		Whites, cases		Deaths			Colored, cases		Deaths	
1884.	Whites,	3	cases,	0	deaths;	colored,	1	case,	0	deaths.
1885.	"	4	"	1	"	"	5	"	4	"
1886.	"	4	"	1	"	"	8	"	5	"
1887.	"	4	"	3	"	"	7	"	5	"
1888.	"	0	"	0	"	"	7	"	5	"
1889.	"	9	"	4	"	"	0	"	0	"
1890.	"	7	"	3	"	"	6	"	4	"
1891.	"	15	"	4	"	"	3	"	1	"
1892.	"	8	"	3	"	"	2	"	1	"
1893.	"	1	"	0	"	"	2	"	2	"

Total, 96: Whites, 55—19 deaths; Colored, 41—27 deaths.

	Whites, per cent.	Colored, per cent.
Actual prevalence	57.29	42.71
Actual mortality	34.55	65.85
Decennial prevalence . . .	0.122	0.213
	12 in 10,000	21 in 10,000
Decennial mortality . . .	0.042	0.140
	4 in 10,000	14 in 10,000

Since the pneumococcus and tubercle bacillus, or either of these mixed with pyogenic cocci, are the most potent factors in the production of pleural diseases, we are justified in concluding that the negro is inclined to be more hospitable to these micro-organisms than the white man.

Endocranial Infections of Surgical Interest.

The diseases of the cranial contents that are of special interest to the surgeon are chiefly due to the pyogenic cocci and tubercle bacillus. These are manifested principally in connection with acute or chronic middle ear and mastoid inflammation, and are recognized as secondary septic sinus phlebitis, cerebral abscess, and meningitis.

In regard to this class of troubles all observers agree that they are much less frequent in the negro than in the white. The observations published by Murrell in the *Proceedings of the Ninth International Congress* (held in Washington, 1886) and the late papers read by Dr. A. W. De Roaldes, of New Orleans, at the International Congress of Otology, held in 1895 in Florence, Italy), and the statistical contribution by Dr. W. Scheppegrell on the "Comparative Pathology of the Negro in the Diseases of the Nose, Throat, and Ear," which was read before the Orleans Parish Medical Society, August 11, 1895, all concur in the same general opinion that suppurative disease of the middle ear is much less common in the negro, and that, consequently, mastoiditis, septic sinus thrombosis, and cerebral suppuration, cerebral abscess, etc., are less frequent in individuals of this race. The statistics of the New Orleans Eye, Ear, Nose, and Throat Hospital, based upon the records of 11,855 cases compiled by Scheppegrell, present the following data in regard to the dangerous forms of middle-ear inflammation:

	Whites.	Colored
Chronic suppurative otitis media	100	16
Acute catarrhal	100	56
Chronic non-suppurative	100	26
Mastoiditis	100	6

These figures certainly show that the colored patients are much less disposed to contract this class of troubles than the whites. These statistics refer, it must be remembered, to a mixed colored population, including the various shades of mulatto with the pure black.

Dr. A. W. De Roaldes, who, as Surgeon-in-Charge of the Institution from which these figures are obtained, is especially authorized to speak, says, in commenting upon this interesting fact that, outside of a special ethnic immunity of the negro which he is not prepared to admit, "we must look to the anatomical differences of the nose and naso-pharynx, the freedom from obstructive deformities in the septum which, on the other hand, are so common and injurious in the white, undoubtedly play a great part in protecting the negro from the suppurative and chronic catarrhal diseases of the middle ear."

Believing that the observations of Murrell, De Roaldes, and Scheppegrell represent the exact status of the negro in regard to this kind of septic inflammations, it would be almost superfluous to present further statistics were it not that the general liability of the negro to meningeal infections cannot be fully recognized if examined simply from the specialist's point of view. If we inquire into the relative susceptibility of the races to all forms of meningitis, whether primary or secondary, we will see that the situation of the negro changes, and that instead of being less liable to meningeal disease, as his comparative immunity from middle-ear inflammation would suggest, we find that he is just as susceptible to encephalic infection as the white man.

The following table embraces all the varieties of meningitis that occur in a large hospital, including the infantile forms.

TABLE XX. *Meningitis. Years, 1884–1894.*

Year		Whites					Colored			
1884.	Whites,	11 cases,	7 deaths;	colored,	9 cases,	8 deaths.
1885.	"	6 "	3 "	"	3 "	2 "
1886.	"	12 "	9 "	"	3 "	1 "
1887.	"	13 "	10 "	"	5 "	4 "
1888.	"	10 "	7 "	"	2 "	2 "
1889.	"	5 "	3 "	"	4 "	4 "
1890.	"	5 "	3 "	"	8 "	5 "
1891.	"	8 "	6 "	"	4 "	4 "
1892.	"	9 "	5 "	"	4 "	1 "
1893.	"	7 "	3 "	"	6 "	3 "

Total, 134: Whites, 86—56 deaths; Colored, 48—34 deaths.

	Whites, per cent.	Colored, per cent.
Actual prevalence	64.18	35.82
Actual mortality	65.12	70.83
Decennial prevalence	0.190	0.249
	19 in 10,000	25 in 10,000
Decennial mortality	0.124	0.177
	124 in 100,000	177 in 100,000

According to this table the colored population is both more liable and more *fatally* liable to contract meningitis.

Cerebral Abscess. We were not able to collect a sufficient number of cases to prepare a table that would assist in determining the relative tendency to cerebral suppuration in the races. We were able to collect only 5 cases that were reported as cerebral abscess during the ten years from 1884 to 1894. Of these 3 were white patients, and the remaining 2 colored. In proportion to the population this would indicate that 0.0066 per cent. of the white and 0.0104 per cent. of the colored had abscess of the brain. In other words, in proportion to population nearly twice as many blacks had abscess of the brain. But, of course, conclusions from such insufficient data are of no serious value.

While investigating this question we incidentally looked up the subject of hydrocephalus as a surgical complaint.

Hydrocephalus. We found only 8 cases of this kind had been reported during the decennium. Of these only 1 was colored. Of the 7 white cases, 4 died or 57.14 per cent., and the only negro succumbed.

If we may estimate on so slender a basis, we would say that hydrocephalus is three times more frequent among the whites than in the negroes. This, however, is not the real state of the case, because observation shows that hydrocephaly is not so rare in the negro population out of the hospital as one would be led to suppose by the reports. It is very likely that the non-prevalence of this affection in the hospital is more due to indifference in the race to hospital treatment and to the persistent neglect of disease in general, especially when this is of a painless kind.

Tumor Formation in the White and Colored Races Compared.

In the preceding chapter we briefly surveyed the evidence furnished by comparative statistics on the subject of the more important surgical conditions which are likely to reveal the different racial predisposition and resistance of the tissues to the various agents of pyogenic, septic, and other specific infections. We shall now appeal to the statistical evidence that has accumulated in the hospital records of the Charity Hospital during the last decennium, to decide the relative *histogenetic* tendencies of the white and black races as displayed in those local disturbances in the trophic equilibration of the tissues which we call tumors or neoplasms.

Benign Neoplasms. That this is a most fruitful field of investigation for the racial pathologist is proved by the constant and unfailing reference made by all writers on the subject to the much greater tendency displayed by the colored race to the development of certain types of benign growths, such as keloid and fibroid.

Upon these special growths the opinion of observers is unanimous. Balloch, of Washington, in his recent and remarkably interesting paper (*Medical News*, January 13, 1894) directs special attention to the greater tendency to fibroid processes in the negro, and emphasizes the opinion previously expressed by other observers. With him we will state "as a pathological axiom, that fibroid processes are relatively more frequent in the dark races; so much more so, in fact, as to constitute a racial peculiarity." He says: "By fibroid processes I do not mean the physiological fibrosis incident to advancing years, nor yet that form in which the parenchyma of an organ is encroached upon by an interstitial connective-tissue hyperplasia. I desire to confine the term to those processes the essential characteristic of which is growth, and which, for the most part depend upon changes caused by inflammation, and which as a rule, have some external injury as a starting point. As the element of heredity seems to enter largely into these changes, perhaps

the term 'fibroid diathesis' may be admissible as expressing the inherent tendency to this class of changes. There are three diseases which, by common consent, are considered as peculiar to the dark-skinned races. These are, elephantiasis arabum, keloid and fibroma, or myofibroma, of the uterus."

These are all fibroid or connective-tissue processes which are essentially characterized by an excessive proliferation of connective-tissue cells of the *adult* or mature type. As these tumors and processes are, embryologically speaking, of mesoblastic origin, it occurred to me that it would be interesting to determine the relative frequency in the races of all the benign tumors which are of a common mesoblastic or connective-tissue derivation. Of these, osteoma and exostosis, enchondroma, lipoma, fibroma, myxoma, angioma, lymph-angioma, with the allied keloid formations, are typical examples of a benign group which is always characterized, histologically, by an homologous cell-proliferation of the *adult* type.

To my great regret, I have not been able to find a sufficient number of cases of either osteoma, enchondroma, or myxoma in our hospital records to permit me to draw useful comparisons. I must state, however, that the most typical cases of osteoma (one of the iliac crest and one of the lower jaw), and the largest enchondromas (of the parotid region and the scapula), and of myxoma (one congenital of sacral region) that have come under my observation were in negro subjects. But as the necessary figures are wanting, I cannot make comparison on this interesting point.

As to the lipomata, I have been able to collect only 46 cases in the reports of the Charity Hospital for the last ten years, and while this number of cases is far from indicating their actual prevalence in either race, it would appear, from the accompanying table, that lipoma is twice as frequent (in our hospital experience) in the negro. This, we must remark, is of unusual significance, because the negro will rarely ask for admission into the hospital unless his condition is very annoying and painful and otherwise unbearable to himself or friends. For this reason I am inclined to believe that the conclusions of this

table not only represent the true position of the races, but that it is probable that the prevalence of lipoma alone or in combination with other connective-tissue elements is even greater in the colored population than is indicated in the table:

TABLE XXI. *Lipoma. Years, 1884–1894.*

Year										
1884.	Whites,	1	case,	0	deaths;	colored,	2	cases,	1	death.
1885.	"	1	"	0	"	"	0	"	0	"
1886.	"	1	"	0	"	"	2	"	0	"
1887.	"	1	"	0	"	"	2	"	0	"
1888.	"	2	"	0	"	"	1	"	0	"
1889.	"	4	"	0	"	"	3	"	0	"
1890.	"	4	"	0	"	"	2	"	0	"
1891.	"	1	"	0	"	"	3	"	0	"
1892.	"	3	"	0	"	"	5	"	0	"
1893.	"	3	"	0	"	"	5	"	0	"

Total, 46: Whites, 21—0 deaths; Colored, 25—1 death.

	Whites, per cent.	Colored, per cent.
Actual prevalence	45.65	54.35
Actual mortality	00.00	4.00
Decennial prevalence	0.046	0.130
	5 in 10,000	13 in 10,000
Decennial mortality	00.00	0.0052
		5 in 100,000

FIBROIDS AND FIBRO-MYOMA. With the view of establishing the comparative rate of prevalence of this class of neoplasms in both races we compiled all the cases of fibroids: fibro-myoma, fibro-lipoma, fibro-cystoma, fibro-myxoma, fibro-enchondroma, osteo-fibroma, which were recorded in our hospital reports during the last decennium. The results are strikingly shown in the following table:

TABLE XXII. *Benign fibroid and fibro-myomatous growths. Years, 1884–1894.*

Year	Whites, cases	Whites, deaths	Colored, cases	Colored, deaths
1884.	Whites, 11 cases,	2 deaths;	colored, 5 cases,	0 deaths.
1885.	" 0 "	0 "	" 8 "	1 "
1886.	" 5 "	0 "	" 6 "	1 "
1887.	" 11 "	0 "	" 12 "	0 "
1888.	" 5 "	0 "	" 9 "	1 "
1889.	" 0 "	0 "	" 15 "	0 "
1890.	" 8 "	2 "	" 10 "	0 "
1891.	" 4 "	0 "	" 15 "	1 "
1892.	" 5 "	1 "	" 20 "	5 "
1893.	" 9 "	1 "	" 20 "	3 "

Total, 178: Whites, 58—6 deaths; Colored, 120—12 deaths.

	Whites, per cent.	Colored, per cent.
Actual prevalence	32.58	67.42
Actual mortality	10.34	10.00
Decennial prevalence . . .	0.128	0.624
	13 in 10,000	62 in 10,000
Decennial mortality . . .	0.013	0.062
	13 in 100,000	62 in 100,000

This clearly shows that fibroids, alone or associated with histoid elements of the same embryological derivation (mesoblast), occurred *five* times more often in the colored than in the white. And, curiously enough, the mortality is exactly proportional to the prevalence, and is five times as fatal in this race. The excessive mortality is due no doubt to the great preponderance of aggravated and neglected uterine fibroids which are usually admitted in the hospital in the most advanced and incurable stages of development.

From the preceding table of fibroids it is forcibly demonstrated that the generally accepted view as to their much greater frequency in the colored race is true. Our gynecologists can repeat with equal emphasis the statement made by Peaslee in 1872, who, after stating that uterine fibroid is very common in the negro race, goes on to say "that very few women die, above the age of forty, at the Home for Colored Incurables in this city (New York), who are free from this disease." Balloch,

in an excellent summary of the evidence, after quoting the confirmatory opinions of Tiffany, of Baltimore, Briggs, of Nashville, Flint, Thomas, Jackson (of the Barbadoes), and Rufz de Levison, of Martinique, adds a few striking figures from the Johns Hopkins Clinic and from the reports of autopsies made by Drs. D. S. Lamb and J. W. Blackburn, of Washington, which entirely agree with the conclusions drawn from our local experience.

KELOIDS. Keloids are by far the most interesting and significant representatives of the connective-tissue group that are offered to the racial pathologist for comparative study. Yet here we are frustrated in our efforts to study their actual and relative frequency, because the patients who bear these tumors rarely call at the clinics for their relief. Outside of the deformity which they cause when situated in exposed portions of the body, they rarely cause any serious inconvenience, so that the patients, particularly the negroes, rarely present themselves for treatment.

They are usually observed incidentally in connection with other complaints, and are but rarely entered in the official reports, in which only the major or dominant condition is referred to. Thus we find but scant reference to them in our records, only exaggerated and extreme cases being reported. With very few exceptions the cases seen in the hospital are true keloids of traumatic origin ; few, if any, are cases of spontaneous *cheloide* of Alibert, in which no traumatism is apparent in the history. Personally, I am convinced that keloid is almost always traumatic. It takes such little traumatism or injury to produce keloid in predisposed subjects, especially negroes, that we can readily understand how the history of injury is easily forgotten. The merest desquamation, pustular eruption, or eczematous condition will be a source of sufficient irritation to invite the hyperplastic keloid process. One of the worst cases of disseminated keloid that has come under my observation occurred in a negro who had vaccinia or varioloid, the tiny scars which followed after the healing of each pustule being occupied by a keloid. Another very extensive case in which a flat confluent keloid mass covered the sternum and mammary regions, also

in a negro, was caused by a superficial eczema due to the irritation of a porous plaster. Some of the most extensive and deplorable cases were due to cicatrization after extensive burns.

As known to all observers, they are strikingly frequent in the lobules of the ears when they develop in the small scar following perforation for ear-rings. In Africa the negroes utilize this tendency to hypertrophic cicatrization for purposes of ornamentation and with the view of identifying the individuals of various tribes. The forehead, temples, and cheeks are thus purposely scarred. In the old slave days it was very common to see these original African negroes with their characteristic tribal marks on the face, the conventional lines standing out prominently in relief in consequence of this keloidal tendency.

The lash strokes on the body, and especially the back, frequently remained as permanent and indelible evidence of the punishment of the slave.

Returning now to the relative frequency of keloid in our hospital, we find that only 10 cases sought admission for this condition during the decennium, yet of these 8 were colored and 2 were white. According to this inadequate statement the proportion of cases to the total hospital population of the decennium would be 0.0044 per cent. in the white and 0.0416 per cent. in the colored. This would mean that keloid is about nine times more frequent in the negro than in the white. Without regard for the figures presented, and depending simply upon my remembrance of cases for an estimate, we would consider this great excess of the negro in this particular as a very probably correct approximation to the truth. That we are not far from the truth in making this assertion is borne out by European experience in keloid. For instance, in Vienna but one case of keloid is reported in 23,944 dermatological cases. No case of keloid was reported in 1000 Scotch and 10,000 English skin cases, all presumably white. Morrison, in a careful study of 1000 cases of diseases of the skin, 500 in white and 500 in colored persons, gives valuable information. For the sake of greater accuracy he divides the colored into pure blacks and those of mixed blood. As to keloid, he notes no cases among

the whites, none in the mulattoes, and 3 in the pure blacks (Balloch). The proportion of the cases is also stated in Dr. Dyer's synopsis of 3538 cases treated in the dermatological clinic of the Charity Hospital, which is appended to this contribution. [Scheppegrell ("Keloid Tumor of the External Ear," *New York Med. Journ*, October 17, 1896), referring to the statistics of the Eye, Ear, Nose, and Throat Hospital of New Orleans, which are quoted elsewhere in this paper, finds that of 11,855 cases treated at this special hospital there were 8 cases of keloid tumors of the lobule of the ear; of this number 7 were in blacks, 1 was in a white person, and 1 in a mulattress. But the facts submitted are sufficient to confirm the extraordinary preponderance of this condition in the colored race.]

As to the clinical peculiarities of keloid and its treatment, my experience is thoroughly in accord with that of all Southern surgeons of experience. Professor Tiffany, in his paper read before the American Surgical Association (*loc. cit.*), covers the essential points that are worthy of remembrance: "The tendency of keloid growths is most pronounced in early life, less so in adult, while it is highly probable that middle and old age are accompanied by a tendency on the part of the formations in question to cease growing and atrophy. Hence an aged negro with keloid is exceptionally seen. Retrograde metamorphosis is characterized by the surface becoming soft and wrinkled, resembling somewhat the pendulous tumor of fibroma molluscum. Removal of keloid in early life is to be deprecated, speedy recurrence being inevitable; when the period of rapid growth has passed an operation can be undertaken with the prospect of relieving the patient from a present discomfort and the expectation of a limited occurrence, if at all."

In further confirmation of this statement I would add that I have tried on various occasions to remove keloids by total extirpation, and by careful approximation and rigorous asepsis have endeavored to obtain the most perfect union, and thus reduce the scar-line to a minimum. Notwithstanding perfect immediate success, I have totally failed in preventing recurrence *in loco*. In one case I decided to excise a small keloid

and to cover the raw surface with Thiersch grafts; in another I removed two square inches of keloidál scar and substituted in its stead an exact equivalent of entirely healthy skin (Wolfe graft). No sutures were used; exact approximation was maintained. In both cases the grafts were taken from the patients themselves. In both the immediate results were perfectly satisfactory, but in both the keloid recurred not only *in situ*, but in the distant surfaces from which the grafts had been taken. In the case in which the Wolfe graft was used the healthy derm of the graft was lifted up by the keloid which developed under it and in the periphery. This has convinced me that permanent success after removal of the fibroid in young negroes is, as a rule, impossible, and, as Tiffany teaches, they should be allowed to atrophy by normal involution.

Elephantiasis and Molluscum Fibrosum. These two conditions are intimately allied to the "fibroid diathesis" of the negro race. They are conditions which, though comparatively rare in our latitudes, are still almost exclusively exhibited by the colored population. I have seen only three cases of multiple fibroma molluscum in the course of fifteen years of very active general practice, and of these two were colored persons.

As to elephantiasis arabum, we must remember that under this designation two different conditions are frequently referred to. One is strictly parasitic, due to the presence of the filaria sanguinis (Bancroft) in the lymphatics, and the other is not associated with the parasite.

While the causes are entirely different the histological process is the same in both. The parasitic form of elephantiasis is practically unknown in this country, though the parasite has been discovered in this country by Guitéras, Mastin, de Sausure, Michel, McShane, and myself in cases of chylocele of the vaginal tunic and in chyluria. This form is common to all the races that live in the tropics. The non-parasitic form, more familiarly known as the Barbadoes leg, is more peculiar to the negro race, and is not infrequent in the colored population of the "black belt;" it is an obstructive lymphangitis, which is followed by permanent œdema, hyperplasia of the fixed connective-tissue

cells of the derm and subcutaneous tissue, which ultimately give rise to monstrous hypertrophy of the affected connective tissue. It is frequently seen in our clinics, following in the wake of chronic neglected ulcers of the legs in negroes. The pictures of the non-traumatic cases which are observed in the lower extremities, scrotum, penis, and clitoris, which are found in most surgical texts, will convey a faithful expression of the true clinical aspect of advanced elephantiasis as observed in New Orleans.

Few medical men who have practised for some time in the South have failed to notice cases of this kind, either in hospitals or on the streets of the large cities. But while the condition is not altogether rare, it cannot be said to be frequent, and is certainly less frequent now than it was reported to be in the old slave days. It is certainly more common in more tropical latitudes. It is certainly also a negro disease, because it is very rarely observed outside of the colored population. I regret that I am not able to present any statistics as to its relative frequency. I have probably seen five typical cases in the leg and scrotum during an experience of fifteen years. Dr. Hill, of Montgomery, Alabama, has reported (*Medical News*, June 30, 1894) six cases observed in Alabama from 1886 to 1893, all in negro patients. I am inclined to believe that this is an uncommon experience for one practitioner, even when situated in a centre favorable for observation.

ANGIOMA. Angiomatous or telangiectatic growths are reported to be rare in the negro, though we would expect these formations to be more frequent in view of the greater activity of the mesoblastic derivatives in this race. It is evident that superficial, cutaneous, or capillary nævi must be difficult of recognition in this race. In the main, however, I believe that the general impression as to the comparative rarity of these lesions is not borne out by the facts. Unfortunately, the statistics which I have been able to gather from our hospital records are insufficient for comparative purposes. Nevertheless we find that 7 cases of angiomatous growths are reported in our records for the decennium. Of these 4 occurred in white subjects and 3 in

colored patients. In proportion to the stated decennial population of the hospital (see Table I.), this would indicate a greater frequency in the colored population; thus, 0.0089 per cent. of the white and 0.0156 per cent. of the colored would be affected with this class of growths. Or, more graphically, 9 in in 100,000 white and 16 in 100,000 colored people would suffer from this condition.

THE MALIGNANT NEOPLASMS. My individual experience in the surgical wards of the Charity Hospital had led me to believe years ago that the negro was more subject than the white race to the benign tumors of the connective tissue group of the adult type; but, accepting the general opinion as to the relative immunity of the African race from the malignant neoplasms in general, I doubted the greater frequency of the malignant neoplasms of the embryonal connective tissue type, viz., the sarcomata. Therefore, when Balloch announced that the sarcomatous growths also predominated in the black race, I was not prepared to accept his opinion unless supported by sufficient evidence. The data furnished by subsequent investigation proved, however, that the colored race is not only more liable than the white to the benign neoplasms of the mature connective tissue type, but that it is also more liable to the embryonal growths of both mesoblastic and epiblastic derivation, which is more than Balloch has contended, for he believes, with the majority of observers, that "the negro shows a remarkable freedom from malignant disease," meaning by this true carcinomatous tumors. He says: "Epithelioma is almost never seen, and carcinoma but rarely. In a recent number of the *Medical News* Kelly notes several cures of epithelioma of the cervix uteri, seen in colored persons, one of whom seemed to be a negress of perfectly pure blood. Sarcoma is the most frequent of the malignant neoplasms in negroes, a fact upon which I desire to lay special stress."

In Senegal, Girard and Huard say that they have never known cancer in the black race; Dr. Chassaniol only saw one case, a cancer of the breast, in a negress. In this country the same impression evidently prevails. Dr. Tiffany says (*loc. cit.*):

"of malignant growths, the ones most common in the negro are the sarcomatous, and these are usually in relation with the skeleton (osteo-sarcoma). *Carcinoma* is very rare in the negro." Dr. Tiffany reports never having seen an epithelioma of the lip or face in the negro. He mentions only one case of epithelioma of the tongue. Christopher Johnson, of Baltimore, also believed epithelioma to be less frequent. The late Prof. T. G. Richardson, of this city, showed statistics from the hospital which indicated that epithelioma was not as rare as believed by other surgeons. Briggs did not believe that cancerous affections were as frequent in the negro as in the white. Yandell, of Louisville, expressed a similar opinion.

According to the Tenth Census the proportion of deaths from cancer per 100,000 of living population is for the whites 20.54 and for the colored 5.85; in the females the proportions are, for the whites 35.44, and for the colored 19.32. Corson, of Savannah, who quotes these figures, says: "From all I can learn, however, cancer is more common *now* than before emancipation, when the vital equation of the race was better. The cases I meet are very rapid, especially of the cervix uteri, etc. The statistics gathered by Dr. Herrick, of this city, from the mortality reports of the leading cities of the South, from 1879 to 1880 would also indicate that cancer was then less frequent in the colored race."[1]

It would appear from all this and other evidence that the opinion which has long existed that the negro was formerly less liable to malignant disease, and especially as to *true cancer*, is founded on some ground, though it is equally certain that *at present* cancer affects the races in the same proportion But our hospital statistics go further than this, and indicate a greater

[1] Hoffmann (Race Traits of American Negro, p. 117 et seq.) quotes the statistics of the cities of Baltimore and Washington, which, according to the Tenth Census, would indicate that the mortality is greater from cancer among the colored people of middle age than among whites of the same age.

"Dr. Middleton Michel, of Charleston, S. C., has clearly disproved the statement of Schroder that carcinoma uteri or any form of carcinoma seldom affects the negro women. According to Dr. Michel, there have been 48 cases of cancer of the uterus among the whites, and 53 cases among the colored families of Charleston during the period 1878–1891.

prevalence of cancer among the colored patients. As they faithfully represent the experience furnished by this institution, they are worthy of serious consideration.

Beginning with the sarcomata, we grouped under this title all the cases reported as pure sarcoma, osteo-sarcoma, myeloid-sarcoma, glio-sarcoma, lympho-sarcoma, adeno-sarcoma, fibro-sarcoma, and melano-sarcoma. (Of this last variety there was only one case in ten years, and this occurred in a white man.) In all 169 cases of sarcoma were collected and grouped in the following table :

TABLE XXIII. *Sarcoma. Years, 1884–1894.*

Year	Whites, cases	Whites, deaths	Colored, cases	Colored, death
1884.	Whites, 8 cases,	2 deaths;	colored, 3 cases,	1 death.
1885.	" 10 "	0 "	" 4 "	2 "
1886.	" 4 "	1 "	" 7 "	2 "
1887.	" 6 "	2 "	" 6 "	1 "
1888.	" 17 "	3 "	" 6 "	1 "
1889.	" 8 "	0 "	" 13 "	1 "
1890.	" 11 "	2 "	" 7 "	1 "
1891.	" 9 "	2 "	" 6 "	2 "
1892.	" 11 "	2 "	" 9 "	1 "
1893.	" 11 "	1 "	" 13 "	4 "

Total, 169: Whites, 95—15 deaths; Colored, 74—16 deaths.

	Whites, per cent.	Colored, per cent.
Actual prevalence	56.21	43.79
Actual mortality	15.79	21.62
Decennial prevalence . . .	0.210	0.385
	21 in 10,000	38 in 10,000
Decennial mortality . . .	0.033	0.083
	33 in 100,000	83 in 100,000

The summary of this table shows that sarcoma is both more frequent and more fatal in the negro.

Then another table was prepared of all the cases reported as epithelioma, scirrhus, or encephaloid, or simply designated as cancer, believing that this term has been applied, at least in the last ten years, to conditions which were strictly cancerous and not sarcomatous. It is certainly possible, and even more than probable, that many sarcomata have been included under this name "cancer," and this, I believe, is confirmed by the great

excess of the cancers over the sarcomata in the sum total of the cases, which cannot be clinically true. Nevertheless, as the hospital staff has been educated to the idea of separating sarcoma from carcinoma, it is certain, especially for the last few years, that the word has been used in the majority of cases in its strictly histological sense. It is to be regretted that in a great many cases the diagnoses were clinical and not microscopical. On this account it cannot be said that the statistics are final and conclusive in deciding the relative frequency of the malignant epithelial growths in the two races.

TABLE XXIV. *Carcinoma and epithelioma. Years, 1884–1894.*

Year		Cases		Deaths			Cases		Deaths	
1884.	Whites,	43	cases,	16	deaths;	colored,	24	cases,	8	deaths.
1885.	"	43	"	17	"	"	17	"	11	"
1886.	"	57	"	25	"	"	28	"	9	"
1887.	"	47	"	14	"	"	35	"	11	"
1888.	"	55	"	12	"	"	24	"	9	"
1889.	"	54	"	17	"	"	31	"	6	"
1890.	"	53	"	20	"	"	37	"	18	"
1891.	"	46	"	15	"	"	38	"	13	"
1892.	"	52	"	15	"	"	37	"	13	"
1893.	"	60	"	17	"	"	34	"	9	"

Total, 815: Whites, 510—168 deaths; Colored, 305—107 deaths.

	Whites, per cent.	Colored, per cent.
Actual prevalence	62.58	37.42
Actual mortality	32.94	35.08
Decennial prevalence	1.13	1.59
	11 in 1000	16 in 1000
Decennial mortality	0.372	0.556
	37 in 10,000	56 in 10,000

According to this table it would certainly appear that in proportion to population the epithelial growths are not only more frequent, but much more fatal in the colored race.

In addition to the cases incorporated in the preceding tables, we found 15 cases reported simply " malignant growths," without specifying the precise nature of the growth. Of these cases 9 occurred in white, and 6 in colored subjects. Of these, 2 white and 2 colored died.

In proportion to the decennial population, this would indicate that 0.020 per cent. of the white, and 0.031 per cent. of the colored; or, again, that 2 in 10,000 of the white, and 3 in 10,000 of the colored population were classed as "malignant disease."

We cannot dismiss the subject of malignant disease without noting the comparative rarity of melanotic sarcoma in the negro in the tissues outside of the eye. The only cases that have been recorded in the hospital are three in number, and these were all white patients. This is certainly a singular exemption when we consider the vast amount of melanotic pigment that is stored up in the negro. This would indicate that from the very fact that its physiological production is so marked a character of the black race, the control of its distribution and elaboration is better and more vigilantly guarded by the organism. We may account for the comparatively greater frequency in the white by the fact that melanogenesis is physiologically restricted to certain limited areas, and is, at best, a rudimentary function, and therefore less under trophic control than in the black race.

On the other hand, malignant lymphoma or lympho-sarcoma of the neck exists quite frequently in our colored services, and I have preserved two photographs of rapidly disseminated cases which ran a frightfully short course, and terminated fatally in the midst of all the classical complications of this terrible condition. This fact is significant in connection with the recognized "lymphatic temperament" of the race.

After this brief survey of the histogenetic peculiarities of the races under comparison, we will conclude with the following propositions:

1. That the tendency to the formation of neoplastic tissue whether purely hyperplastic or heteroplastic is greater in the negro than in the white race.

2. That the typical mesoblastic derivatives of the adult connective tissue group are especially prone to develop in the negro.

3. That of this group, the fibroma and cicatricial keloid preponderate sufficiently to give to the black race a striking pathological peculiarity.

4. That the mesoblastic derivatives of the embryonal connective tissue type, *i. e.*, the sarcomata, are also apparently more frequent in the negro, with the sole exception of the melanotic sarcomas, which are rare.

5. That contrary to the generally accepted belief, the epiblastic derivatives of embryonal type, or the true cancers, appear, statistically at least, to be even more common than in the white race.

6. That in regard to the malignant neoplasms the negro constitution has probably undergone some change under the conditions of American civilization, since it cannot be doubted that cancer is comparatively rare in the native African, rare also in the original slave population of this country, and has only become a common disease in the American negro of the last few generations. It is also probable that the conditions that are causing an increase in the prevalence of cancer among the whites are also acting with the same effect upon the negroes.

The Venereal Infections.

This embraces the great venereal trinity—syphilis, chancroid, and gonorrhœa. Whatever may be the conflicting opinions of some clinicians and bacteriologists, the fact always remains that the condition known by these terms indicate three distinct and radically different types of infection. As to the first (syphilis), and last (gonorrhœa), there can be no question as to their absolute specificity. It is only chancroid that is still claimed to be a non-specific disease, though there is good evidence in favor of its bacterial specificity (*e.g.*, the Ducrey-Unna strepto-bacillus). Whether it be due to a specific germ or not, is not essential, however, for our purpose. What is more interesting, from a point of view of negro pathology, is the fact that, while the germ of syphilis is non-pyogenic, the micro-organisms of chancroid and gonorrhœa are essentially so. In view of the more important consequences that would follow a greater susceptibility to syphilis, or a greater resistance to it, in either race, we have preferred to give this great pandemic separate considera-

tion in the group of the general surgical infections. It is evident, nevertheless, that the influence of such widely diffused infections as the chancroidal and the gonorrhœal poisons in determining the pathological physiognomy of a race should not be underestimated. This is especially true in the case of the negro, on accouut of the supposed pyogenic tendencies of this race, which would presumably predispose it to these essentially pus-forming diseases. Before undertaking the study of these two infections, it will be well to consider the relative prevalence and mortality of the races from the venereal diseases collectively. For this purpose we have prepared a table which includes all the cases treated in the venereal services of the hospital. These are recorded annually in a separate section of our reports, and include the major part of the syphilitic, chancroidal and gonorrhœal cases treated in the hospital during the last decennium. Many of the more distant sequelæ of these infections are, however, included in other sections of our reports, especially in the eye, ear, nose, and throat sections, and in the dermatological and genito-urinary services. Notwithstanding its incompleteness, this table will give a fairly representative idea of the relative prevalence and mortality from the acute manifestations of the venereal group in the two races.

TABLE XXV. *Venereal diseases. Years, 1884–1894.*

Whites.

Year.	Total.	Remaining Dec. 31st.	Discharged and died.	Died.
1884.	204	24	180	8
1885.	212	23	189	5
1886.	215	21	194	4
1887.	194	35	159	2
1888.	245	49	196	1
1889.	236	17	219	6
1890.	188	29	159	7
1891.	241	23	218	4
1892.	230	14	216	3
1893.	243	28	215	9
Total, ...			1945	49

Colored.

Year.	Total.	Remaining Dec. 31st.	Discharged and died.	Died.
1884.	88	5	81	6
1885.	87	17	70	4
1886.	74	3	71	2
1887.	69	18	51	7
1888.	83	11	72	1
1889.	103	3	100	10
1890.	71	15	56	5
1891.	142	18	124	8
1892.	216	11	205	7
1893.	236	10	226	13
Total, ...			1056	63

Total cases, 3001.

	Whites, per cent.	Colored, per cent.
Actual prevalence	64.81	35.19
Actual mortality	2.52	5.97
	25 in 1000	60 in 1000
Decennial prevalence . . .	4.30	5.49
	43 in 1000	55 in 1000
Decennial mortality . . .	0.108	0.327
	11 in 10,000	33 in 10,000

It would appear from this table that the venereal diseases, as a whole, are decidedly more prevalent and three times more fatal in the colored than in the white race. We have already seen that this is true of syphilis when separately considered.

CHANCROID. All the cases of chancroid that have been treated in the wards during the decennium have been collected in the following table:

TABLE XXVI. *Chancroid. Years, 1884–1894.*

Year		Cases		Deaths			Cases		Deaths	
1884.	Whites,	44	cases,	0	deaths;	colored,	24	cases,	0	deaths.
1885.	"	66	"	1	"	"	11	"	0	"
1886.	"	51	"	1	"	"	11	"	0	"
1887.	"	53	"	0	"	"	15	"	1	"
1888.	"	70	"	0	"	"	13	"	0	"
1889.	"	50	"	0	"	"	20	"	0	"
1890.	"	38	"	0	"	"	23	"	2	"
1891.	"	83	"	0	"	"	45	"	1	"
1892.	"	71	"	0	"	"	58	"	0	"
1893.	"	61	"	0	"	"	92	"	2	"

Total, 899: Whites, 587—2 deaths; Colored, 312—6 deaths.

	Whites, per cent.	Colored, per cent.
Actual prevalence	65.29	34.71
Actual mortality	0.341	1.92
	34 in 10,000	192 in 10,000
Decennial prevalence	1.30	1.62
	13 in 1000	16 in 1000
Decennial mortality	0.0044	0.0312
	4 in 100,000	31 in 100,000

The cases of chancroidal disease that are here represented are all of an aggravated or complicated type, as the simple cases are usually treated in the out-door clinics. According to this table, the chancroidal infection of all kinds, irrespective of locality or condition, and associated with the characteristic bubo, is both more frequent and more virulent—if we must be guided by the greater mortality—in the negro than in the white race. I do not believe, however, that the excess in the number of negro cases must be considered as a specific racial peculiarity or as an indication of a greater tendency to suppuration in the race. I believe that this excess of cases is readily explained by the longer prepuce of the negro, which, together with uncleanliness, predisposes to balanitis, and prepare the soil for infection. The weaker resistance of the lymphatic system of the negro may also enter as a predisposing factor in favoring the contamination of the inguinal lymphatics. In connection with this condition we must repeat what we have said so often

about all other diseases, that chancroid is apparently more dangerous in the negro because the people of this race rarely appeal to hospital assistance unless forced to do so by the direst necessity. Hence it is that *phagedenic* and *serpiginous* ulceration are more often seen in the colored than in the white wards. In support of this statement, that phimosis, to the extent of requiring operative relief, is more frequent in the negro than in the white race, I would submit a table which embraces 141 cases treated in the wards during the last decennium:

TABLE XXVII. *Phimosis. Years, 1884–1894.*

Year		Whites		Deaths			Colored		Deaths	
1884.	Whites,	9	cases,	0	deaths;	colored,	1	cases,	0	deaths.
1885.	"	6	"	0	"	"	2	"	0	"
1886.	"	11	"	0	"	"	5	"	0	"
1887.	"	11	"	0	"	"	0	"	0	"
1888.	"	6	"	0	"	"	4	"	0	"
188).	"	8	"	0	"	"	2	"	0	"
1890.	"	1	"	0	"	"	2	"	0	"
1891.	"	11	"	0	"	"	4	"	0	"
1892.	"	10	"	0	"	"	9	"	0	"
1893.	"	11	"	0	"	"	28	"	0	"

Total, 141: Whites, 84—0 deaths; Colored, 57—0 deaths.

	Whites, per cent.	Colored, per cent.
Actual prevalence	59.57	40.43
Decennial prevalence . . .	0.186	0.296
	19 in 10,000	30 in 10,000

By comparison with the respective total white and black hospital population of the decennium we realize that nearly twice as many more negroes than whites are liable to phimosis requiring surgical treatment in hospital practice.

This is certainly in accordance with my experience and that of all local surgeons.

More important still than chancroid is gonorrhœa and its complications. All the cases of gonorrhœa that have been recorded as such have been collected in the following table:

TABLE XXVIII. *Gonorrhœa. Years, 1884–1894.*

1884.	Whites,	35	cases,	0	deaths;	colored,	6	cases,	0 deaths.
1885.	"	32	"	0	"	"	3	"	0 "
1886.	"	30	"	0	"	"	6	"	0 "
1887.	"	19	"	0	"	"	1	"	0 "
1888.	"	12	"	0	"	"	10	"	0 "
1889.	"	37	"	0	"	"	6	"	0 "
1890.	"	25	"	0	"	"	6	"	0 "
1891.	"	25	"	0	"	"	8	"	0 "
1892.	"	33	"	0	"	"	16	"	0 "
1893.	"	39	"	0	"	"	17	"	0 "

Total, 366: Whites, 287—0 deaths; Colored, 79—0 deaths.

	Whites, per cent.	Colored, per cent.
Actual prevalence	78.42	21.58
Decennial prevalence . . .	0.635	0.411
	635 in 100,000	411 in 100,000

This summary would appear to indicate that, contrary to the general belief, gonorrhœa is less prevalent in the black population. It is to be regretted that the records of cases in the out-door clinic have not been sufficiently classified and published, as the statistics from this source would certainly indicate at least a greater statistical equilibrium between the races than is shown by the in-door reports. It is also undeniable that many, if not the vast majority of the milder cases, are treated by druggists and others. That gonorrhœa is more frequent in the negro is apparently sustained by Surgeon Armstrong's report of the out-clinic department of the United States Marine Hospital at Memphis, for the quinquennium 1881–85 (*l. c.*). According to these statistics, 8.8 per cent. of the whites and 12.6 per cent. of the colored had gonorrhœa.

Knowing the great *rôle* played by gonococcal infection in the production of the *inflammatory* diseases of the female genital tract, we have sought for the comparative influence in the races of this dominant element in their causation, by compiling a table of all the cases of diseases of the female organs of generation as they are separately grouped in our reports. The results are shown in the summary of—

TABLE XXIX. *Diseases of the female organs of generation (excluding tumors). Years, 1884–1894.*

Whites.

Year.	Total.	Remaining Dec. 31st.	Discharged and died.	Died.
1884.	77	10	67	1
1885.	52	7	45	1
1886.	62	7	55	0
1887.	70	13	57	1
1888.	110	5	105	0
1889.	77	13	64	1
1890.	89	8	81	0
1891.	94	9	85	1
1892.	118	8	110	0
1893.	145	5	140	5
Total, ...			809	10

Colored.

Year.	Total.	Remaining Dec. 31st.	Discharged and died.	Died.
1884.	31	3	28	0
1885.	27	1	26	1
1886.	18	2	16	0
1887.	33	7	26	0
1888.	48	1	47	0
1889.	44	1	43	0
1890.	71	7	64	0
1891.	73	5	68	2
1892.	74	4	70	2
1893.	107	6	101	4
Total, ...			489	9

Total white and colored cases, 1298.

	Whites, per cent.	Colored, per cent.
Actual prevalence	62.33	37.67
Actual mortality	1.24	1.84
	12 in 1000	18 in 1000
Decennial prevalence	1.79	2.54
	18 in 1000	25 in 1000
Decennial mortality	0.022	0.047
	22 in 100,000	47 in 100,000

In this table all the diseases of the female generative organs are included except the neoplastic formation, such as the cysts, fibroids, cancers, and other tumors, which are grouped in a separate section. The diseases that preponderate in this table are the various types of metritis and tubo-ovarian infection, some the post-puerperal traumatisms of the genital tract, together with a lesser number of functional disorders of menstruation. The majority of these diseases are due to either gonorrhœal or puerperal infection.

Now the summary at the end of this table indicates plainly that the diseases under consideration are nearly *twice* as frequent in the colored, and that the mortality is double that of the white women treated for the same complaints in the same institution.

This would encourage the belief that the dominant and most dangerous cause of these diseases, gonorrhœa, is more common and more virulent among the colored than among the white population.

If we seek for other indirect evidence as to the relative status of the races in regard to gonococcal infection, we shall find some information in the comparative study of the sequelæ and complications of this disease in the male. Of these, stricture of the urethra is a favorable lesion for comparative study, and the accompanying table fairly gives the desired information :

TABLE XXX. *Stricture of urethra. Years, 1884–1894.*

1884.	Whites,	28	cases,	0	deaths;	colored,	14	cases,	3	deaths.
1885.	"	19	"	3	"	"	14	"	4	"
1886.	"	22	"	1	"	"	22	"	5	"
1887.	"	32	"	0	"	"	28	"	4	"
1888.	"	31	"	1	"	"	15	"	0	"
1889.	"	31	"	2	"	"	31	"	4	"
1890.	"	36	"	3	"	"	20	"	3	"
1891.	"	25	"	1	"	"	37	"	4	"
1892.	"	43	"	1	"	"	25	"	1	"
1893.	"	32	"	1	"	"	41	"	3	"

Total, 546: Whites, 299—13 deaths; Colored, 247—31 deaths.

	Whites, per cent.	Colored, per cent.
Actual prevalence	54.76	45.24
Actual mortality	4.35	12.55
Decennial prevalence	0.662	1.284
	66 in 10,000	128 in 10,000
Decennial mortality	0.029	0.161
	29 in 100,000	161 in 100,000

According to this table, stricture of the urethra which is essentally a fibroid or cicatricial process, is found to be *twice* as frequent and *five times more fatal* in the colored hospital population.

My experience in regard to stricture in the negro coincides in every particular with the statement made by Dr. Corson, of Savannah (*l. c.*, p. 149), viz.: "I have never among the whites seen such neglected cases of old strictures where urethral abscesses and fistulas have formed, and where they have been content to go along without interference until, perhaps, extravasation of urine has compelled them at the eleventh hour to seek surgical help." I have certainly operated more frequently for extravasation of urine, and observed more cases of gangrenous scrotum and penis in the colored wards; and my experience in this particular confirms again what Dr. Corson has said of this and other surgical conditions in the negro, viz., that they reveal the apathy, the indifference, to make a struggle for life, which is such a strong psychical trait of the race.

Other complications of gonorrhœa which I have tabulated for comparison are *orchitis* and *epididymitis*.

We have collected a total of 250 cases; of these 202 were white and 48 colored. According to the total decennial population, the proportion of these cases of testicular inflammation would be 0.447 per cent. of the white and 0.249 per cent. of the colored population. In other words, 45 in 10,000 white and 25 in 10,000 colored, would be liable to this special complication.

Here we find that this complication is, statistically at least, much less prevalent in the negroes, almost in the proportion of one colored to two whites. I must admit that this relative immunity of the testicle from gonorrhœal inflammation appears

to be confirmed by my personal experience, but I cannot offer a satisfactory explanation of this apparent exemption unless it be that irritant effect of the gonococcus is chiefly expended upon the epithelium of the urethra, which desquamates sufficiently to expose the connective-tissue substratum of the mucosa, and thus brings into relief the fibroid tendency of the negro, thereby explaining the greater frequency of stricture in the race. If these statistics represent the actual status of the negro on this point—and they are certainly faithful exponents of our recorded experience—then the gonorrhœal virus would not be as diffusible in the race as it is in the whites, for not only do orchitis and epididymitis appear to be less frequent in the colored population, but cystitis is also less prone to follow the specific of infection, as is shown by the accompanying table:

TABLE XXXI. *Cystitis. Years, 1884–1894.*

Year	Whites, cases		deaths	Colored, cases		deaths
1884.	Whites, 7 cases,		2 deaths;	colored, 4 cases,		0 deaths.
1885.	" 15 "		2 "	" 8 "		2 "
1886.	" 8 "		1 "	" 1 "		0 "
1887.	" 17 "		0 "	" 2 "		0 "
1888.	" 23 "		2 "	" 4 "		0 "
1889.	" 15 "		3 "	" 3 "		0 "
1890.	" 17 "		5 "	" 3 "		0 "
1891.	" 21 "		1 "	" 18 "		1 "
1892.	" 27 "		0 "	" 9 "		2 "
1893.	" 14 "		1 "	" 13 "		1 "

Total, 229: Whites, 164—17 deaths; Colored, 65—6 deaths.

	Whites, per cent.	Colored, per cent.
Actual prevalence	71.62	28.38
Actual mortality	10.37	9.23
Decennial prevalence . . .	0.363	0.338
	36 in 10,000	34 in 10,000
Decennial mortality . . .	0.0376	0.0312
	38 in 100,000	31 in 100,000

A diminished tendency to *gonorrhœal rheumatism* is also shown by our hospital experience, for out of 23 cases admitted for this condition, or existing as complications of gonorrhœa, 17 were in

white subjects and 6 in colored; or, proportionally stated, 0.376 per cent. of the white, and 0.312 per cent. of the colored population were admitted for this condition. The difference, however, is very slight, for if we state the proportion more graphically we see that, according to the decennial population, 38 in 100,000 colored, and 31 in 100,000 white, would be subjects for this complaint.

The difference in favor of a diminished prevalence in the negro is also shown by our experience in *gonorrhœal bubo.* Twenty-eight cases of this complication were collected—23 in the white and 5 in the negro. Proportionally to the decennial population, this would mean that 0.0509 per cent. of the white and 0.0260 per cent. of the colored, or 51 in 100,000 white and 26 in 100,000 colored, are admitted for the treatment of gonorrhœal bubo. In other words, gonorrhœal bubo is likely to occur twice more often in the white than in colored persons.

On the other hand, it would appear that the mucous surface (conjunctiva) of the eye, like the urethral mucosa, is more subject to gonorrheal infection than in the white. We have collected 35 cases of gonorrhœal ophthalmia for the whole decennium—17 in the white and 18 in the colored patients, or 48.57 per cent. were white and 51.43 per cent. were colored patients. Stated proportionally to the population, 0.0376 per cent., or 38 in 100,000, of the white, and 0.0936 per cent., or 94 in 100,000, of the colored population suffered from this grave complication.

Another complication which is not rare in consequence of gonorrhœal urethritis, is *prostatitis.* Yet it is surprising to see how rarely it appears in our hospital reports. Thus, for a whole decade we have been able to collect only three cases—two white and one colored. Of course, no conclusion can be drawn from this, except that this condition occurs in both races.

In conclusion, according to my experience, the gonorrhœal poison is only more active in the negro in the urethral and ophthalmic mucosæ, and probably also in the mucosa of the female genital tract. It is apparently less virulent than in the white race in the testicle, bladder, lymphatics and other parts such as the muscles and joints.

To terminate with the comparative study of other important genito-urinary conditions of surgical interest, we will present a table of the cases of *hydrocele of the tunica vaginalis testis* which have been reported in our hospital. In all, 108 cases have been collected, 68 of these were in white subjects and 40 in colored patients; or 62.96 per cent. were white and 37.04 per cent. colored. In relation to the population, the true proportion would be 0.151 per cent. of the white and 0.208 per cent. of the colored population; or, more plainly, 15 in 10,000 white and 21 in 10,000 colored, suffered from this lesion of the vaginal tunic.

A surgical disease of the genital apparatus that deserves special notice in connection with negro pathology is *senile enlargement or hypertrophy of the prostate gland.* Here the greater liability of the negro to fibroid change should show itself to advantage, and according to our meagre statistics it does appear to be *more* frequent and *more* fatal in individuals of this race.

In all, only 37 cases were recorded in the reports. Of these 22 were in white and 15 in colored subjects. Two of the white and three of the colored died. In proportion to the population this would mean that 0.049 per cent. of the white and 0.078 of colored; or, again, 49 in 100,000 white and 78 in 100,000 colored, are subject to this condition in hospital practice.

As a whole, hypertrophy of the prostate does not appear to be a common hospital disease in this city.

Urinary calculus has been reported to be a rare disease in the negro. In reality, it is a comparatively rare disease in both races in the whole territory that borders on the Gulf Coast. This is shown by our hospital experience, for, after a careful search, we have been able to collect only 43 reported cases for the whole decennium. The accompanying table presents all the data that we have been able to gather on this point.

TABLE XXXII. *Calculus in bladder. Years, 1884–1894.*

Year	Whites, cases	deaths	colored, cases	death
1884.	Whites, 0 cases,	0 deaths;	colored, 2 cases,	1 death.
1885.	" 3 "	0 "	" 0 "	0 "
1886.	" 2 "	0 "	" 4 "	1 "
1887.	" 4 "	0 "	" 0 "	0 "
1888.	" 2 "	0 "	" 0 "	0 "
1889.	" 7 "	1 "	" 1 "	0 "
1890.	" 1 "	1 "	" 0 "	0 "
1891.	" 3 "	0 "	" 1 "	0 "
1892.	" 3 "	0 "	" 1 "	0 "
1893.	" 8 "	1 "	" 1 "	0 "

Total, 43: Whites, 33—3 deaths; Colored, 10—2 deaths.

	Whites, per cent.	Colored, per cent.
Actual prevalence	76.74	23.26
Actual mortality	9.09	20.00
Decennial prevalence . . .	0.073	0.052
	73 in 100,000	52 in 100,000
Decennial mortality . . .	0.0066	0.0104
	66 in 1,000,000	104 in 1,000,000

According to our experience in the Charity Hospital it would appear that urinary calculus is less frequent but more fatal in the negro than in the white.

Dr. George Ben Johnston, of Richmond, Va., has very recently discussed this question in a valuable paper read before the Southern Surgical and Gynecological Association at its meeting held in Washington, November, 1895. (Abstract, *Medical News*, p. 695, December 21, 1895.) In order to study the comparative frequency of stone in the bladder in the white and negro races, he selected the States of Virginia, North Carolina, South Carolina, Alabama, Georgia, Tennessee, Kentucky, Florida, Louisiana, Mississippi, Arkansas, and Texas, as the field of inquiry, and corresponded with four hundred representative practitioners in order to procure the necessary data. He succeeded in collecting 1068 cases of stone in the bladder. Of these, 952 were in white subjects and 116 in negroes. It is at once observed that the negro cases represent 9.55 per cent. of all the cases reported. This showing is quite sufficient to dis-

prove the idea of immunity which the negro has been supposed to enjoy.

In this connection it is curious to note the geographical distribution: Alabama, 10; Arkansas, 11; Florida, 28; Georgia, 90; Kentucky, 56; Louisiana, 19; Mississippi, 9; North Carolina, 126; South Carolina, 66; Tennessee, 128; Texas, 98; Virginia, 430.

While these numbers do not really represent the full actual prevalence of calculus in the various States mentioned, they nevertheless indicate a great difference as to the relative prevalence of this condition. They furthermore indicate that the prevalence of stone is not proportioned to the colored population. Thus Louisiana and Mississippi and Alabama, which are in the heart of the black belt, show the least number of reported calculi.

Fractures, Rickets, and Dislocations.

An excellent subject for comparing the relative regenerative capacity of the tissues in the two races that interest us are the osseous fractures. In these acute traumatic lesions the individuals of both races usually belong to the same class, are in the same hygienic and social surroundings, and in both races the patients are stricken in the best health during the most active and robust period of life. Here the racial traits should be displayed to the best advantage. Furthermore, an additionally favorable condition for comparison is to be noted—*i. e.*, that the cases when taken from hospital practice are subjected to the same uniform method of treatment. For these reasons the following table, which includes all kinds and conditions of fractures, irrespective of topographical distribution, etc., is of special interest.

TABLE XXXIII. *Fractures. Years, 1884–1894.*

Year		Whites, cases		Deaths			Colored, cases		Deaths	
1884.	Whites,	89	cases,	5	deaths;	colored,	31	cases,	3	deaths.
1885.	"	133	"	20	"	"	45	"	10	"
1886.	"	105	"	10	"	"	41	"	6	"
1887.	"	99	"	9	"	"	37	"	1	"
1888.	"	132	"	17	"	"	42	"	2	"
1889.	"	123	"	18	"	"	60	"	8	"
1890.	"	137	"	13	"	"	62	"	9	"
1891.	"	156	"	17	"	"	77	"	4	"
1892.	"	178	"	15	"	"	74	"	8	"
1893.	"	181	"	20	"	"	92	"	7	"

Total, 1894: Whites, 1333—144 deaths; Colored, 561—58 deaths.

	Whites, per cent.	Colored, per cent.
Actual prevalence	70.38	29.62
Actual mortality	10.80	10.34
Decennial prevalence	2.95	2.92
	295 in 10,000	292 in 10,000
Decennial mortality	0.319	0.301
	32 in 10,000	30 in 10,000

We regret that we are not able to present a classified table of fractures, or a table which would show the average length of time taken by the white and colored patients to complete recovery, or even the average number of days during which the patients remained in the hospital for treatment; but, outside of the classification of the bones broken and the complications that were associated with them, our records would fail to assist us in compiling the necessary data.

The general summary of this table would indicate that in this respect the races are well balanced, and that if there is any difference between them it is in favor of the colored patients. This is true not only as to prevalence but also as to mortality. This certainly proves that the negro is not rhachitic, and has no greater tendency to fracture his bones than the white man of the same station in life. It also confirms the impression that in this, as in all acute traumatisms, the recuperative powers of the negro are equal to those of the white man in equality of circumstances and when placed in the same environment.

Apropos of *rhachitis* we would mention the fact that this condition is comparatively rare in our population. Our hospital experience should serve as a reliable index to its general prevalence in the city population, because it is essentially a condition that is manifested in the dependent classes. The fact, therefore, that only 14 cases have been admitted for this condition in the Charity Hospital during ten years would alone confirm the correctness of this impression. Of these 14 cases, 9 were in white and 5 in colored patients. This would indicate a proportion of 0.0199 per cent. white and 0.0260 per cent. colored patients, or that 20 in 100,000 of the white and 26 in 100,000 of the colored population would be afflicted with this infirmity. It is probable that with the constantly increasing influx of emigrants from foreign countries, from Italy especially, that this proportion of rickets in the white will be increased. Thus far there is no special demonstration of any tendency to an increased prevalence of rickets (in the negro) notwithstanding the apparently favorable conditions for its development in their midst.

Dislocations. The following table, which embraces all the reported dislocations that have been admitted during the decennium, also points to a practical equality of the races, and certainly to no greater liability of the negro.

Table XXXIV. *Dislocations. Years, 1884–1894.*

1884.	Whites,	13	cases,	1	deaths;	colored,	1	case,	0	deaths.
1885.	"	14	"	2	"	"	9	"	0	"
1886.	"	11	"	0	"	"	2	"	0	"
1887.	"	12	"	1	"	"	5	"	0	"
1888.	"	7	"	0	"	"	0	"	0	"
1889.	"	9	"	1	"	"	3	"	0	"
1890.	"	13	"	0	"	"	2	"	0	"
1891.	"	29	"	0	"	"	2	"	0	"
1892.	"	12	"	1	"	"	9	"	0	"
1893.	"	14	"	2	"	"	7	"	0	"

Total, 174: Whites, 134—8 deaths; Colored, 40—0 deaths.

	Whites, per cent.	Colored, per cent.
Actual prevalence	77.01	22.99
Actual mortality	5.96	00.00
Decennial prevalence	0.297	0.208
	30 in 10,000	21 in 10,000
Decennial mortality	0.018	0.000
	18 in 100,000	

It has been claimed (Bordier and others) that dislocation of the lower jaw occurs more frequently in the negro than in the white, on account, presumably, of the greater development of the muscles of mastication. We cannot offer convincing statistics on this point, because the majority of these cases, which are at best comparatively rare, are all treated in the outdoor department. Nevertheless, I believe that this statement is not sustained by experience. Notwithstanding a large colored service and faithful observation, I have yet to meet the first case of dislocation of the lower jaw in a negro. It is not likely, therefore, that this accident is more frequent in this race than in the white, at least in Louisiana. As to the other dislocations, it is my impression, and I believe that of all my colleagues, that they are distributed in the negro very much as in the white race.

Surgical Diseases of the Circulatory System.

We will begin our notice of these diseases by presenting a general table which embodies all the cases recorded in our hospital reports as "Diseases Affecting the Circulatory Organs." In our reports the diseases in question are included in a separate section, which embraces all the lesions, whether congenital or acquired, of the heart muscle, of the endocardium and pericardium, non-traumatic aneurism, and diseases of the veins. The table which follows affords, for this reason, a fair view of these diseases as presented by both races in large groups:

TABLE XXXV. *Diseases of the circulatory organs. Years, 1884–1894.*

Whites.

Year.	Total.	Remaining Dec. 31st.	Discharged and died.	Died.
1884.	154	14	140	31
1885.	132	18	114	38
1886.	134	17	117	28
1887.	139	22	117	40
1888.	129	20	109	31
1889.	135	17	118	43
1890.	148	14	134	40
1891.	151	9	142	44
1892.	95	6	89	32
1893.	184	20	164	38
Total, ...			1244	365

Colored.

Year.	Total.	Remaining Dec. 31st.	Discharged and died.	Died.
1884.	78	7	71	35
1885.	85	1	84	33
1886.	74	2	72	29
1887.	89	7	82	33
1888.	76	6	70	27
1889.	127	8	119	52
1890.	120	10	110	55
1891.	111	3	108	45
1892.	96	2	94	44
1893.	98	3	95	29
Total,			905	382

Total White and Colored cases, 2149.

	Whites, per cent.	Colored, per cent.
Actual prevalence	57.89	42.11
Actual mortality	29.34	42.21
Decennial prevalence	2.75	4.70
	28 in 1000	47 in 1000
Decennial mortality	0.81	1.99
	8 in 1000	20 in 1000

According to the summary we find that in proportion to the decennial population there were almost twice as many colored

as white patients of this class, and that the mortality was two-and-a-half times greater in the colored.

The following table is of more direct surgical interest, as it refers exclusively to aneurisms due to purely pathological or non-traumatic causes :

TABLE XXXVI. *Aneurisms. Years, 1884–1894.*

Year		Cases		Deaths			Cases		Deaths	
1884.	Whites,	34	cases,	6	deaths;	colored,	5	cases,	1	deaths.
1885.	"	25	"	11	"	"	6	"	2	"
1886.	"	13	"	5	"	"	3	"	2	"
1887.	"	16	"	3	"	"	5	"	2	"
1888.	"	11	"	5	"	"	9	"	4	"
1889.	"	11	"	4	"	"	7	"	2	"
1890.	"	8	"	3	"	"	4	"	1	"
1891.	"	9	"	4	"	"	4	"	1	"
1892.	"	8	"	1	"	"	5	"	3	"
1893.	"	8	"	3	"	"	8	"	1	"

Total, 199 : Whites, 143—45 deaths; Colored, 56—19 deaths.

	Whites, per cent.	Colored, per cent.
Actual prevalence	71.86	28.14
Actual mortality	31.47	33.93
Decennial prevalence . . .	0.316	0.291
	32 in 10,000	29 in 10,000
Decennial mortality . . .	0.0996	0.0988
	100 in 100,000	99 in 100,000

According to this statistical synopsis the "idiopathic" or non-traumatic aneurisms are both less frequent and less fatal in the colored population. As the pathology of non-traumatic aneurism is based essentially upon that of chronic atheromatous endarteritis, we must presume that if aneurism is less frequent in the negro this must be due to either a lesser exposure or lesser liability to the causes that lead to this form of arterial disease. Now, while the difference in the prevalence of this condition as exhibited by our statistical experience is not so great as to constitute a relative immunity from this aneurismal condition in the colored race, the difference in favor of the latter is still sufficient to call for some comment. Syphilis, alcoholism, rheumatism,

and gout, are the chief factors to be considered, together with hard labor, in the causation of aneurism. Rheumatism, gout, and alcoholism are unquestionably more prevalent in the whites and less frequent in the negro, as well as in all the more primitive or savage races. It must be generally conceded that these two affections are distinctly associated with the more artificial conditions of a higher civilization with its luxuries, its sedentary occupations, and the greater nervous tension of the higher intellectual pursuits. While there are numerous and striking exceptions, it must, nevertheless, be admitted that this statement is true, and that the comparative immunity of the negro from rheumatism and gout must be attributed in a great measure to the lower social and more primitive condition of this element of the population. On the other hand, this relative immunity from rheumatism and gout is offset by the great dissemination of syphilis in the black race, and the gradually increasing spread of alcoholism among them.[1] These two causes alone are rapidly increasing the predisposition to arterio-sclerosis in the negro, and raising him to the statistical level of the white race. It is my belief that if aneurism is not altogether as frequent in the colored as in the white people at the present moment, it will not be long before an equal propensity in this direction will be displayed by the colored race.

Hemorrhoids and Varicose Veins.

Notwithstanding the comparatively greater anatomical capacity of the venous system which the negro is reputed to possess,

[1] Mr. Hoffmann, in the essay that I have so frequently quoted, reviews the available evidences on the subject of alcoholism in the negro. After quoting the statistics of the Federal Army (rate of rejection for chronic alcoholism in the army according to nationality and race) during the war; the comparative statistics of intemperance in the army; the statistics of the Freedmen's Bureau, 1865–72; the census returns for the cities of Washington, Baltimore, Charleston, Savannah, etc., he concludes that "whatever may be the condition in the North, it is not shown that the negro of the South reveals any positive tendency to a higher rate of mortality from alcoholism. . . . .

"If the race is still as free from alcoholic taint as it was before and during the war and reconstruction period [as is shown by statistics], such exemption will prove of considerable economic advantage in the struggle for life."

varicosites of all sorts appear to be less frequent in this race. The following table which contrasts the white and colored cases of hemorrhoids admitted for treatment in the Charity Hospital (therefore, aggravated cases) indicates the relative prevalence of this condition:

TABLE XXXVII. *Hemorrhoids. Years, 1884–1894.*

Year		Cases		Deaths			Cases		Deaths	
1884.	Whites,	13	cases,	0	deaths;	colored,	0	cases,	0	deaths.
1885.	"	17	"	0	"	"	2	"	0	"
1886.	"	29	"	0	"	"	2	"	0	"
1887.	"	19	"	0	"	"	1	"	0	"
1888.	"	13	"	0	"	"	3	"	0	"
1889.	"	12	"	0	"	"	1	"	0	"
1890.	"	21	"	0	"	"	3	"	0	"
1891.	"	31	"	0	"	"	5	"	0	"
1892.	"	20	"	0	"	"	10	"	0	"
1893.	"	20	"	0	"	"	13	"	0	"

Total, 235: Whites, 195—0 deaths; Colored, 40—0 deaths.

	Whites, per cent.	Colored, per cent.
Actual prevalence	82.98	17.02
Decennial prevalence . . .	0.432	0.208
	43 in 10,000	21 in 10,000

According to this table, the generally expressed opinion of most writers on this subject, to the effect that hemorrhoids and varices are less frequent in the colored race, appears to be confirmed.

We have also compiled all the cases of varicose veins (chiefly of the lower extremities) which were admitted for the treatment of this condition, and found that in all 59 cases were admitted; of these 81.36 per cent. were white, and 18.64 per cent. were colored. In proportion to the population the white prevalence would be 0.106 per cent., and colored 0.057 or 11 in 10,000 of the white, and 6 in 10,000 of the colored population would apply to the hospital for the treatment of varicose veins.

In this respect we believe that the negro does not differ markedly from all primitive people, and that this, together with

many other pathological peculiarities, must be regarded as a relic of a savage or primitive immunity.

HERNIA. Hernia, especially congenital umbilical hernia, is reported by all medical observers in Africa, the Antilles, and other countries, as being more frequent in the negro than in the white race. Corre (quoted by Bordier) goes so far as to suggest that this condition is so frequent in negro children, because the circular muscular ring of unstriated muscular fibres which surrounds the umbilical opening (first described by Richet) is defectively developed in the African race. It is more likely due to careless dressing of the cord and greater neglect of the infant, as suggested by other writers. At any rate it cannot be denied that umbilical hernia is more frequent in negro infants than in whites. Unfortunately, we are not able to present a sufficiently demonstrative statistical compilation on this point, and we must satisfy ourselves with the presentation of a table which includes all the cases of hernia that have been admitted for treatment during the decennium:

TABLE XXXVIII. *Abdominal hernia. Years, 1884–1894.*

Year		Cases		Deaths			Cases		Deaths	
1884.	Whites,	5	cases,	1	deaths;	colored,	5	cases,	2	deaths.
1885.	"	8	"	3	"	"	5	"	1	"
1886.	"	8	"	1	"	"	5	"	1	"
1887.	"	9	"	0	"	"	6	"	0	"
1888.	"	11	"	1	"	"	6	"	1	"
1889.	"	9	"	2	"	"	5	"	1	"
1890.	"	5	"	2	"	"	3	"	2	"
1891.	"	21	"	5	"	"	6	"	0	"
1892.	"	13	"	5	"	"	11	"	0	"
1893.	"	21	"	5	"	"	8	"	1	"

Total, 170: Whites, 110—25 deaths; Colored, 60—9 deaths.

	Whites, per cent.	Colored, per cent.
Actual prevalence	64.71	35.29
Actual mortality	22.73	15.00
Decennial prevalence . . .	0.243	0.312
	24 in 10,000	31 in 10,000
Decennial mortality . . .	0.055	0.047
	55 in 100,000	47 in 100,000

The synopsis of this table shows that, in proportion to their respective populations, abdominal hernia is more frequent in the negro than in the white, and that, strange to remark, it is little less fatal in the former race.

CONGENITAL DEFORMITIES. These have always been reported to be more scarce among the colored people than among the whites, and our hospital experience would apparently confirm this opinion. Harelip and cleft palate is a rare condition in our indoor hospital experience in both races. In ten years we find only 15 cases mentioned. Of these 11 were in whites and 4 in negroes. In proportion to the hospital population this would mean that 0.0243 per cent. of the white or 24 in 100,000, and 0.0208 per cent. or 21 in 100,000 of the colored are thus afflicted; thus, even according to this statement, the difference between the races is not so striking as many would believe.

I am satisfied by more general observation outside of the hospital that this class of defects are more common among the negroes than is currently believed. I have seen several cases of harelip and cleft palate in typical negro children. I believe, however, that one of the reasons why these conditions appear to be less frequent is due to the greater mortality among the black infants thus afflicted, because it impossible for them to receive that extreme care, intelligent nursing, and constant maternal attention that they especially require.

A still greater discrepancy appears to exist between the white and the colored races in regard to club-foot. Thus in ten years only 25 cases were admitted for this condition; 24 whites, and only one colored. This is evidently not an exact indication of the relative prevalence of this deformity, as we know that there is not a year in which several cases of club-foot among the negroes do not present themselves for treatment in the outclinics. But as the proper apparatus for orthopedic treatment is not furnished by the institution, and as the parents of the children are either too poor or not over-anxious as to the final outcome of this deformity, it is probable that the majority prefer to leave the children untreated, and thus rarely seek their admission in the hospital.

Other deformities:

Genu valgum: Only three cases are reported for the decennium; of these two were white and one colored.

Genu varum: Four cases in ten years; and all were colored.

Hallux valgus: Two cases; one white and one colored.

Syndactylism: One white, no colored.

Exstrophy of the bladder and complete epispadias: Three cases; all colored.

Epispadias: Only one white patient; no colored.

Hypospadias: Two cases; one white and one colored.

Spina bifida: Two white cases; no colored.

These statements only indicate the comparative rarity of these deformities in our indoor clinics in both races. The statistics are evidently insufficient to permit of racial comparison, though it is certain that the deformities in question exist in both races.

Diseases of the Skin Racially Considered.

The comparative pathology of the white and colored races would suggest a most fruitful and striking contrast in the study of the lesions of the skin. With the view of obtaining the most authoritative and experienced opinion on this subject in our midst, I have requested Dr. Isadore Dyer, Dermatologist to the Charity Hospital,[1] to prepare a short synoptical statement of his general impressions, based upon a statistical study of the cases that have been brought under his observation in the Charity Hospital, as an appendix to this paper. This he has kindly consented to do, as will be seen by the following report:[2]

"Excepting for a desultory article here and there in dermatologic literature, the study of the negro as viewed through the skin is as yet a virgin one.

"The clinician of to-day in his study of skin diseases differentiates disease by analysis. The eruption is studied in relation to the location and arrangement. The individual lesions are

[1] Also Professor of Dermatology, New Orleans Polyclinic, Lecturer on Dermatology, Medical Department, Tulane University of Louisiana, etc.

[2] Extract from report as Chairman on Dermatology, Louisiana State Medical Association, 1895.

studied in their size, their shape, their character and their color, and finally in their pathology.

"In the text-books one reads of fine distinctions made in color differentiation.

"To us who live in the black centre, lines such as these are of little service, as no account of the pigment anomalies in the black is considered.

"The question which presents itself for consideration is, first of all: Is the negro a factor in dermal pathology, and to what extent? Most of the ordinary diagnostic methods must be relegated. Degrees of inflammation, pigmentation, even shape, are obliterated by the superpigmentation in the natural hue of the negro.

"Statistically, the negro cannot be faithfully studied, as the milder and more benign diseases of the skin go untreated, while the painful, irritating, disfiguring, and destructive diseases multiply. The negro is not esthetic, and a mere cosmetic complaint would not appeal to his intelligence as requiring a therapeutic measure.[1] It is only when pain or discomfort, or alarm or loss of tissue forces his attention, that the negro comes, and then for physical relief. So it is that diseases which simply mar the white skin, and annoy by their presence alone, are rare, indeed, statistically in the negro. Hygienic factors certainly determine the marked occurrence of parasitic and filth diseases in the negro.

"Loose morals make a proportionately large percentage of syphilitic cases, while neglect of treatment and the indifference to the early symptoms account for a larger number of the later lesions of syphilis.

"Parallel lines might be drawn for the study of various skin diseases in the white and negro, and sufficient distinctions would be evidenced to warrant this investigation. Here, however, a *résumé*, with a statistic table, will tend to establish a position for the negro in dermal pathology, independent of the white.

"The list, arranged as follows, is taken from a total of 2538 unselected cases of skin diseases of all races and nationalities registered in the dermatological service of Charity Hospital, New Orleans, La. Of these, 556 were negroes, or 21 + per cent.

The table is drawn with a numerical statement of the occurrence of each skin disease and with its percentage relation to the total:

Name of Disease.	No. of Negro Cases.	Percentage Relation to Total.
Syphilis	144	0.057
Scabies	117	0.046
Eczema	83	0.033
Tinea circinata	19	0.0075
Pediculosis vestamenti	13	0.0051
Seborrhœa sicca	12	0.0047
Acne	11	0.0043
Dermatitis seborrhœica	11	0.0043
Herpes zoster	9	0.0035
Ulcus	9	0.0035
Pruritus	9	0.0035
Lepra	7	0.0028
Varicella	7	0.0028
Verrucca	7	0.0028
Dermatitis factitia	7	0.0028
Erythema multiforme	6	0.0023
Lichen planus	5	0.0019
Impetigo contagiosa	4	0.0016
Herpes simplex	4	0.0016
Furunculosis, folliculitis, tinea tonsurans, mycosis microsporina, leucoderma, keloid,[1] impetigo, each	3	0.0011
Lichen ruber acuminatus, lupus vulgaris, pediculosis capitis, pemphigus, pityriasis maculea et circinata, psoriasis, dermatitis medicamentosa, dermatitis pilaris capillitii, dermatitis venenata, erysipelas, erythema intertrigo, furuncle, urticaria, lichen tropicus, abscessus, each	2	0.00079
Leucoplakia, lichen simplex, miliaria crystallina, milium, paronychia, purpura simplex, purpura rheumatica, rosacea, seborrhœa oleosa, sycosis non parasitica, alopecia areata, canities, chloasma, clavus, erythema simplex, fibroma, hydroa vacciniforme, steatoma, adenoma of the fat-glands, dysidrosis, tuberculosis cutis each	1	0.00039

[1] Dr. Dyer informs me that in a mixed group of 2538 black and white cases he has observed 5 cases of *keloid in whites*, and 3 in negroes! This is clearly a contradiction of European and Northern experience as to the rarity of keloid in the white race, and also confirms the statements frequently made in this contribution that the negro is, as a rule, indifferent to painless ailments, and rarely seeks medical assistance unless compelled to do so by unbearable conditions.—R. M.

Diseases of the Eye Racially Considered.

It would be impossible to review the surgical peculiarities of the negro race without some reference to its comparative morbidity in the special field of ophthalmology. In view of the great facilities offered for this study by the large clinics of the Eye Department of the Eye, Ear, Nose, and Throat Hospital of New Orleans, I have not hesitated to cull from this source the most reliable data that can be obtained for this racial comparison. Fortunately, the data have been already carefully prepared and considered by the surgeon-in-charge, Dr. Henry Dickson Bruns, in a valuable paper entitled "Two Years in a Southern Eye Clinic," which was read before the Louisiana State Medical Society at its meeting in May, 1895. This contribution, together with an earlier paper by Dr. C. W. Kollock, of South Carolina, entitled "The Eye of the Negro" (*Annals of Ophthalmology*, 1893, vol. ii.) probably constitute the most recent, as well as interesting and authoritative, studies in the literature of the subject.

With the kind assistance of the author I am now able to present an abstract of the original and yet unpublished report of Dr. Bruns.

"As to the interesting question of race as a predisposing cause of diseases, we must seek first to establish the normal percentage of those of negro blood among the patients attending my clinic. This is very readily and very exactly done. Of the 4160 cases in the tables, 1113 were of African descent, a percentage of 26.75. Of the grand total of patients, 19,710, who visited the hospital from December 5, 1889, to December 31, 1893, 14,380 were white and 5330 were colored; a percentage of 27.04, which may be taken as the fixed or normal percentage-rate.

"It is probable that no clinic in the world presents advantages superior to those of the Eye, Ear, Nose, and Throat Hospital for observing diseases of the eye as they present themselves in the negro race or those of negro blood, and for comparing the frequency with which this or that disease, or this or that portion of the eye, is attacked in the white and colored races.

"The normal percentage rate (27 per cent.) seems to be maintained in diseases and injuries of the lids and lachrymal apparatus (27 + per cent.), the conjunctiva (28 + per cent.), of the cornea and sclera (29 + per cent.), of the lens (27 + per cent.), of the optic nerve and retinas (24 + per cent.).[1] The normal rate is very markedly exceeded in glaucoma (37 + per cent.), in diseases and injuries of the whole globe (37 + per cent.), and in diseases and injuries of the iris and ciliary body (45 + per cent.).

"Again, as to glaucoma, I have no conjecture to hazard; the explanation of the excess of negroes among cases of disease and injury of the whole eyeball is not far to seek; the reckless, exposed, and dissipated lives they lead in a great city render them especially liable to these severe injuries (6 out of the 27 negro cases), while their improvidence and their neglect of their own and one another's diseases make common among them phthisis bulbi, panophthalmitis, and sympathetic ophthalmia (17 out of the 27 cases; 34 per cent. of all such cases white or black). The very high percentage rate of cyclitic and iritic troubles among them is due to the extreme liability of the race to iritis; of the 134 cases of disease of these tissues in negroes, 116 are cases of non-traumatic cyclitis, iritis, or their sequelæ; 45 + per cent. of all such cases in both races and 38 + per cent. of cyclitis or iritic diseases or injuries; indeed, the 74 cases of non-traumatic acute iritis in this race alone form 24 + per cent. of the cases of cyclitic and iritic disease, while the same cases (100) in the whites form but 33 + per cent. of the total 299 cases, although, as we have seen, the whites outnumber the blacks in this clinic by almost 3 to 1. The saturation of the race with syphilis, the efficient cause of iritis, is the all-sufficient explanation of these facts. On the other hand, the percentage of blacks falls very low in diseases of the choroid (16 + per cent.), and cases of refractive error (14 per cent.), and anomalies of the extrinsic eye muscles (14 + per cent.). That this should be true of choroid disease is a surprise, and until I can gather

[1] It would be unsafe at any rate to base any conclusion upon such slight variations in percentage unless a vastly larger number of cases could be had for calculation.

together larger figures I have no explanation to suggest; but as to refractive and muscular affections, this, as I have said elsewhere (*Fourth Annual Report of the Eye, Ear, Nose, and Throat Hospital*, 1893, p. 50), is in consonance with all that experience and statistics have taught us. These defects are among the taxes laid by advancing civilization. The more sedentary, cerebral, and ocular become the conditions of existence, the greater the advance in ophthalmic science, and the larger grows the army of spectacle wearers. On the contrary, mechanics, laborers, woodmen, cowboys, and savages have, as their lives keep them more and more in the open, as their eyes are less 'blinded' by 'poring over miserable books,' less and less need of eye-glasses. Of the 71 negroes with refractive defects recorded in the tables only 6 (6 out of a total of 1113 negro eye cases!) are set down as near-sighted, while only 9 have complicated eye defects (H H as 8 and M M as 1). As, however, they advance in civilization they will be called upon to bear its physical as well as its other burdens. In the clinics and on the streets of Boston, New York, and Philadelphia near-sighted negroes are not infrequently seen. It is to be observed that but 5 cases of strabismus in colored persons are recorded in the "affection of extrinsic muscles" table, while this and other musculo-refractive anomalies are noted 90 times among the 128 white (70 + per cent.). Eleven of these 21 negro cases are paralytic affections most often due to syphilis. I cannot recollect having seen a really dark negro with strabismus, save as the result of old disease or injury of one eye.

"Thus the lesson learned in considering these defects of vision in relation to sex is here repeated and emphasized.

"Pushing now our investigations more into detail, we find that chalazion is almost the only lid disease to which the negro is subject. Of the 127 negro cases in the table of lid and lachrymal diseases, 69 are cases of chalazion (53 + per cent.), while the malady forms but 21 + per cent. of all the white cases. The black negro rarely has blepharitis, the mulatto not infrequently, this malady forming but 11 per cent. of the diseases of the lid in the negro against 30 + per cent. in the white.

"Catarrhal conjunctivitis forms 32 + per cent. of conjunctival diseases in the whites, only 18 + per cent. in the negro; phlyctenular ophthalmia forms 40 per cent. of all white cases. Pterygium forms 8 + per cent. of all negro, and only 5 + per cent. of all white cases. The rarity of trachoma among negroes is confirmed by this table; only 2 per cent. of trachomatous patients were found. I do not remember a case in a really dark negro. All were mulattoes. Indeed, trachoma is not common among our population in general, our figures showing but 9 per cent. conjunctival cases. The disease seems to be almost entirely confined to German and Italian (Dago) immigrants with some cases from other States among the low class Irish.

"Elsewhere (*ut supra*) I have ascribed this to the better condition of food and ventilation under which our laboring classes live. Of corneal diseases, ulcers, and leucomata (the scars of ulcers) form 55 + per cent. in negroes, and only 31 + per cent. in whites. It is singular that more than three times as many foreign bodies were removed from the cornea and more than twice as many from the conjunctiva of whites as from those of negroes. These figures will illustrate the necessity for a knowledge of the habits and character of the race in drawing conclusions from such data. They are beyond doubt explicable by the facts that negroes seldom seek professional aid until the mischief has become serious (often irremediable) and that in this country they are comparatively infrequently employed as mechanics."

The Diseases of the Ear, Nose, and Throat, Racially Considered.

It is only in the last few years that hospitals and clinics have been established in the South for the special treatment of these conditions. In consequence, the systematic comparative study of these affections as they are exhibited in individuals of the white and colored race has only begun of late. One of the largest of these institutions in the South, and the one most favorably situated for the purpose, is the Eye,

Ear, Nose, and Throat Hospital of New Orleans, and it is from the plentiful material of this large and popular clinic that we are able to gather sufficient statistics for the racial comparison that is of interest in the present article. We find that, though this clinic was only started in 1892, over 12,000 patients have been treated in the ear, nose, and throat department alone. That the statistical accumulation of observations in this institution has begun to yield fruitful results is well attested by two valuable and interesting contributions that have very recently emanated from the chief surgeon and founder of the hospital, Dr. A. W. de Roaldes, and one of his able assistants, Dr. William Scheppegrell. The paper by Dr. A. W. de Roaldes was read September, 1895, at the Fifth International Congress of Otology, held in Florence, Italy, and is entitled "A Preliminary Note on Some of the Otological Peculiarities of the Negro;" the paper by Dr. Scheppegrell was read before the Orleans Parish Medical Society, August 11, 1895, and is entitled "The Comparative Pathology of the Negro in Diseases of the Ear, Nose, and Throat, from an Analysis of 11,855 Cases." I have made a special note of these contributions (not yet published), because with the exception of a valuable communication read by Dr. William Murrell, of Little Rock, Arkansas, at the Ninth International Congress, held in Washington in 1887, they constitute the only systematic presentation of the comparative pathology of the races from this special standpoint in our literature. As the population which has served as a basis for these studies is of the same composition as that which visits the Charity Hospital of this city, I shall not hesitate to avail myself of the kind invitation of the authors to incorporate the essential data presented by them in this report.

In discussing the general anatomy and physiology of the negro we have dealt, sufficiently for our purpose at least, with the anatomical peculiarities of the ear, nose, and throat that are of interest to the general surgeon. In noticing the endocranial infections we have also referred to the comparative infrequency of middle-ear inflammations in the colored race. In addition to this and other numerous peculiarities, de Roaldes and Scheppe-

grell confirm the relative infrequency of deafness in the colored race. De Roaldes observes that of 24 cases of congenital deaf-mutism that have applied to his clinic for treatment, only one was a negro. He quotes the United States Census of 1890, which states that in 1,000,000 inhabitants of the South Atlantic division there were 745 white deaf-mutes and 438 colored victims of this defect. In the South Central division there were 659 deaf-mutes among the white inhabitants and 304 deaf-mutes among the colored per 1,000,000 inhabitants. While it is probable that the number of deaf-mutes is greater in the colored than the census figures would indicate, it is nevertheless quite certain that the proportion of deaf-mutes is greater in the white than in the colored race.

The conclusions arrived at by Dr. de Roaldes are stated as follows:

1. Between the white and negro races there exist marked differences from the standpoint of the otologist. But as the field of observation widens the differences between the races appear to be less numerous than one would be led to believe by the first impression.

2. Without denying the influence of climate, of hygiene, and of environment, etc., I am inclined to believe that the peculiarities presented by the negro race from the standpoint of the aural specialist are due, in a great measure, to the anatomical differences existing between the races.

Having referred at sufficient length to the peculiarities of the nose and pharynx that are of surgical interest, I shall simply refer to the following tables, prepared by Dr. Scheppegrell, as a final supplement to this special section. These tables show the number of cases of the diseases designated in 11,855 cases, the first column being the number of whites affected, the second of the colored, and the third the number of negroes affected to 100 whites. In the tables the word "negro" is not restricted to individuals of pure African type, but as opposed to the term "white," and known commonly as "colored."

I. General Table.

	Whites.	Negroes.	No. of Negroes to 100 Whites.
Diseases of the mouth and tongue	388	156	42
" " fauces, pharynx	2717	747	27
" " larynx and trachea	347	108	31
" " œsophagus	35	4	11
" " neck	128	109	85
" " nose and accessory cavities	2483	571	23
" " ear	3029	788	26
Miscellaneous diseases presenting symptoms in ear, nose, and throat	167	78	47

II. Special Table.

	Whites.	Negroes.	No. of Negroes to 100 Whites.
Epithelioma of mouth, throat, and nose	16	11	69
Tubercular laryngitis	95	34	35
Luetic affections of the mouth, nose, and throat	15	4	27
Hypertrophy of faucial tonsils	635	119	18
" " pharyngeal tonsils	982	219	22
" " lingual tonsils	234	64	27
Elongated uvula	56	43	76
Rhinitis, hypertrophica, and intumescens	806	204	25
" atrophica fetida	126	41	32
" " simplex	225	55	24
" diphtheritica	6	0	0
Deformed septum	568	57	10
Perforating ulcer of septum	13	2	15
Nasal polypi (myxomata)	63	10	16
Rhino-pharyngitis chronica (post-nasal catarrh)	322	40	12
Lymphadenitis cervicalis	88	80	91
Bronchocele (*goitre*)	31	39	126
Basedow's disease (*exophthalmic goitre*)	5	4	80
Chronic non-suppurative otitis media	914	245	26
" suppurative otitis media	663	108	16
Acute catarrhal otitis media	69	39	56
" otitis externa	179	37	21
Impacted wax	447	107	24
Mastoiditis	12	3	25
Deaf-mutism	16	1	6
Keloid tumor of lobe of ear	1	7	700
Diphtheria	6	8	133

DISEASES REPUTED TO PREVAIL EXCLUSIVELY IN THE NEGRO RACE.

We have already referred to several of the diseases which are reputed to attack the African race exclusively. There are the Africa cachexia, or negro phthisis, or the mal d'estomac of the French; the sleeping sickness of West Africa; beriberi; yaws, pian, bubas or frambœsia; elephantiasis; traumatic keloid; phagedenic ulcer of the tropics, ulcer of Mozambique, and ainhun of Brazil. Of these last, six only are of surgical interest. Not one of these is the exclusive attribute of the black race. None of these, we repeat, is specifically distinctive of the race. A wider knowledge of the geographical distribution of disease and a closer study of tropical maladies have clearly demonstrated that all races, including the Aryan, when subjected for a sufficient length of time to the active causes of these diseases in tropical or otherwise favorable latitudes, are liable to them. It is universally recognized, however, that the colored race is especially predisposed to these diseases, while the white races enjoy a *relative* immunity.

All the diseases mentioned, with the exception of ainhun and beriberi, were very prevalent among the original African slaves imported to this country in the earlier days of the slave trade, and are, on this account, presumably, of African origin. They prevailed extensively among their immediate descendants, but as the importation of new material from Africa ceased with the suppression of the slave traffic, the prevalence of these disorders rapidly diminished, so that with the exception of elephantiasis and keloid they have become so rare, that whenever cases present themselves in our clinics they are regarded as pathological curiosities. As an illustration of this rarity, I would state that in all my professional experience in Louisiana (since 1880) I have never seen a true case of that peculiar anæmia known as the African cachexia (anæmia caused apparently by a species of nematode, the ankylostomum duodenale); neither have I known of a case of sleeping sickness; nor a single case of beriberi which is so frequent in Cuba. It was first imported to the

Antilles by coolies from India, and is known in Cuba as the "hinchazon," or swelling, of the negroes, because the dropsical form is more common than the paralytic in that country. It has special affinities for the yellow race, and in Japan, where it is known as "kakké," it is endemic. In all my hospital and private experience in Louisiana I have only seen two cases of yaws. The first case presented itself in the service of Dr. Joseph Jones in 1879, in the person of a yellow man (mulatto), a native of Mauritius. He had contracted the disease in Africa, and as a sailor he brought it with him to this country. The other patient is a black negro, a native of one of the country parishes, who applied for treatment last summer (1895) in the service of Dr. Marion Souchon. There was some doubt at first as to the nature of his trouble, but after a careful study of his case it was recognized that he was suffering with a typical case of sporadic yaws. This patient appears to have developed the disease in Louisiana. As there is no clue in his history by which contagion can be traced, we must presume that the cause of the disease can originate *de novo*, though I admit that this is improbable.

We have already referred to the prevalence of elephantiasis among the negroes, though it is much less frequent here than in other tropical countries. The Mozambique or tropical ulcer is unknown here as an independent morbid entity, but phagedenic ulceration is common among the negroes as a sequel to some primary infectious ulceration like chancroid or syphilis. The peculiarities of keloid need not be referred to again, except to repeat that it is not absolutely pathognomonic of the negro race.

Finally, a word as to ainhun. This is a disease which has been claimed, more persistently than of others, to be truly specific of the negro race. Nevertheless, Mirault, Frontan, and others have observed it in individuals of the white race. Ainhun was first recognized and described as a separate disease in 1867 by Da Silva Lima, of Bahia, Brazil. The name ainhun, or aimhoum, is derived from the Brazilian negro patois, and means a fissure (Bordier). It is characterized essentially by the forma-

tion of a deep groove or sulcus at the digito-plantar junction of the little toe, though the other toes may be also affected. This sulcus continues to increase in depth until the toe hangs to the foot by a slender pedicle, which is finally severed, and the toe drops off. The appearance of the toe in this condition resembles very closely that due to gradually increasing linear constriction or strangulation with a thread. It is very slow in its progress, from one to ten years being required to effect the spontaneous amputation of the diseased extremity. It is evidently a tropho-neurosis which gives rise to an annular scleroderma. The general health is not affected in the least; the disease is altogether local. It may be mistaken for leprosy, and, as Zambaco Pasha has recently demonstrated, may indeed be an early manifestation of the disease. It has great affinities with that type of symmetrical gangrene or local asphyxia known as Reynaud's disease. Dr. Dell 'Orto, of New Orleans, and the writer were the first to recognize ainhun in Louisiana. The writer has seen only one well authenticated case in which there were no evidences of leprosy. It is certainly a rare disorder in this country, differing in this way from leprosy, which is relatively prevalent in Louisiana. Little need be said as to the treatment. Moncorvo claims to have aborted the disease by cutting through the sclerodermic ring; but in the majority of the cases amputation, which is usually bloodless and painless, will be required.

General Conclusions.

In the foregoing pages we have passed in rapid review the more salient anthropological, anatomical, physiological and pathological data that are of interest to the surgeon in the comparative study of the negro race in the United States. We have endeavored to present the relative morbidity and mortality of the white and colored races as they exist in the South, and particularly in Louisiana, where the conditions are more favorable for a comparative study of this kind. We have drawn largely upon the records of the Charity Hospital of New Orleans and the impressions gathered from our personal experience, and we

believe we have presented sufficient statistical data to permit us to formulate some conclusions. It would be superfluous to repeat the conclusions that have been already presented at the end of each one of the more important sections. There are a few general propositions, however, which have been forced upon us by a careful analysis of the literature of this subject and by all the available data at our command, which we believe deserve special recognition and can be appropriately submitted, without further discussion at the end of this contribution, viz.:

1. The North American negro, as he is known at present in the United States, is anthropologically, physiologically, and pathologically different from his original African ancestors and from his uncivilized brothers in the West Coast of Africa of the present generation.

2. A residence of nearly three hundred years on the Southern States of North America in contact with the white man and under the influence of civilization has produced a marked change in the mental and physical organization of the negro.

3. This change is evidently due to the combined influences of acclimatization and adaptation to surroundings other than those of climate, and especially to miscegenation with the white race.

4. That the general morbidity and mortality of the colored race was less than that of the white population in the South during the whole period of slavery and up to emancipation.

5. That since the colored race has been thrown upon its own resources (since 1864) its morbidity and mortality have enormously increased, and are now much greater than those of the white population.

6. That in consequence of the altered conditions of existence the diseases which were peculiar to the slave period, and notably the more typical African diseases, are rapidly disappearing. On the other hand, the general liability of the negro to the common diseases of this country is rapidly increasing. So that many immunities which he formerly enjoyed have been lost and new predispositions to disease have been acquired. In other words, the tendency of the colored race is to lose the specific patho-

logical peculiarities which it acquired during the original process of race differentiation in Africa, and to rapidly subject itself to the conditions that affect the white race.

7. There are no diseases which prevail *exclusively* in the colored race any more than there are diseases which prevail *exclusively* in the white race. The differences, pathologically speaking, that do exist between the white and the colored population lie only in the *relative* predisposition to some of the diseases that prevail in this country and in their *relative* immunity from others.

8. When viewed from the purely surgical operative standpoint, the white and the negro are practically alike, especially when individuals of both races, taken from the same social environment, are compared. There are no apparent differences between the races on the operating-table. The same technique applies to both equally as well; and often, especially in the matter of resistance to shock, the negro appears to better advantage than the white man. In the general and local reactions of the tissues to infection there are some differences between the races. It is in the histogenetic tendencies of the tissues that we find the real surgical contrast between them. If we are to judge from this alone, the colored race reveals in this last particular a marked tendency to degeneration.

9. That the progress accomplished in modern surgery by the introduction of anæsthesia and antisepsis have proved just as applicable and advantageous to the negro as to the white man.

10. That the comparative statistics furnished by the records of the Charity Hospital of New Orleans for the last decennium on the surgical diseases of the colored race confirm, in general, the conclusions of the United States Census of 1890, and are in harmony with the general impression that prevails throughout the South, viz: that the colored race is degenerating, if by this we mean a growing inability to resist the causes that are inimical to its existence.

11. That the degenerative tendencies of the colored race revealed by statistics, are due, essentially, to the influence of unfavorable hygienic surroundings; to unfavorable social (in-

cluding moral) environment; to all the causes which lead to a bad heredity, vice, dependency, and degradation, and which are acting simultaneously upon an ethnologically inferior and passive race which is struggling for existence with a superior, aggressive, and dominant population.

Bibliography.

The student who is interested in the comparative study of the negro race in its medical relations will find it to his advantage to begin his acquaintance with the bibliography by consulting Vol. IX. of the *Index Catalogue* of the Surgeon-General's Library, Washington, D. C. In this volume, which was published in 1888, the reader will find references to over 205 distinct contributions under the headings: "Negroes" and "Diseases of Negroes." Other valuable references will be found under the titles: "Craniology," "Face," "Fever (Yellow) and the Slave Trade," "Hymen," "Skin."

With the object of facilitating the work of the student we have compiled the bibliography on the negro as it has appeared periodically in the *Index Medicus* from 1888 to October 7, 1895, so that anyone who may wish to consult the literature of this subject will be able to supplement the *Index Catalogue* by the following list, which carries the bibliography to October 7, 1895.

In addition to the references in the *Index Catalogue* and *Index Medicus* the reader will find many data of collateral interest in the following works, which have been profitably consulted by the author:

Encyclopædia Britannica, article "Negro," by A. H. Keane. Ninth edition, 1884. New York and Chicago: Scribner's Sons.

DeBow's articles on the Negro (in Industrial Resources of Southern and Western States, in 3 vols.). 1852.

Bordier (A.). Géographie Médicale. Paris: C. Reinwald, 1884.

Bordier (A.). Pathologie Comparée de l'Homme et des Étres Organisés. Paris: Lecrosnier et Babes, 1889.

Cartwright. On Slavery in the Light of Ethnology, in "Cotton is King." Edited by Elliott, Augusta, Ga., 1860.

Dunbar (Edw. E.). History of the Rise and Decline of Commercial Slavery in America. New York: Carleton, 1863.

Le Conte (Joseph). The Race Problem in the South (popular lectures and discussions before the Brooklyn Ethical Society). D. Appleton & Co., 1892.

Mery (M. L. E. Moreau de St.). Description Topographique, Physique, Civile, etc., de la partie Francaise dé St. Dominique. Philadelphia, 1797.

Otken (C. H.). The Ills of the South. Putnam's Sons, 1894.

Quatrefages (A. de). The Human Species (transl.). Int. Scientific Series. D. Appleton & Co., 1879.

Testut (L.). Les Anomalies Musculaires Chez l'Homme. Paris: G. Masson, 1884.

Topinard (P.). L'Anthropologie. Paris: C. Reinwald.

Topinard (Paul). Elements d'Anthropologie. Paris: Delahaye & Lecrosnier, 1885.

Williams. History of the Negro Races in America from 1619 to 1880.

Since the supplementary bibliographic index was completed, the following work has appeared:

Frederick L. Hoffmann, F. S. S. Race Traits and Tendencies of the American Negro. Publications of the American Economical Association, August, 1896, vol. xi., Nos. 1, 2, 3, pp. 1–329. New York: Macmillan Company. [This latest contribution by Mr. Hoffmann contains references to his previous publications on the subject, and constitutes the most instructive, satisfactory, and conclusive monograph that the present writer has had the pleasure to consult. As the work of an accomplished professional statistician and specialist in this subject it is indispensable to the student, and constitutes a complete encyclopædia in itself.—R. M.]

BIBLIOGRAPHY OF THE NEGRO SUBSEQUENT TO 1888 (TO SUPPLEMENT THE REFERENCES IN THE INDEX CATALOGUE OF THE SURGEON-GENERAL'S LIBRARY), TO OCTOBER 7, 1895.

Acker (G. N.). Rickets in Negroes (from Arch. Pediat., N. Y., 1894, xi. 893–898). Trans. Amer. Pediat. Soc., N. Y., 1894, vi. 137–142.

Armstrong (S. C.). The Future of the American Negro. Proc. Nat. Confer. Char., Boston, 1887, xiv. 167–170.

Balloch (E. A.). The Relative Frequency of Fibroid Processes in the Dark-skinned Races. Med. News, Philadelphia, 1895, lxiv. 29–35.

Ball (M. V.). Vital Statistics of the Negro. Med. News, Philadelphia, lxv. 392.

Ball (M. V.). The Mortality of the Negro. Med. News, Philadelphia, 1894, lxiv. 389.

Blodgett (J. H.). The Negro in the United States. Cutting from Liberia, Washington, D. C., 1894, Bulletin No. 4, 16–58.

Bodington (Alice). The Importance of Race and its Bearing on the "Negro Question." Westminster Review, London, 1890, cxxxiv. 415–427.

Bottard. Crane de Negre du Senegal. Bull. Soc. d'Anthrop. de Paris, 1889, 35, xii. 38–41.

Butler (M. C.). Emigration of Colored People, 8vo. 1890.

Byers (J. W.). Diseases of the Southern Negro. Med. and Surg. Reporter, Philadelphia, 1888, lviii. 734–737.

Byers (J. W.). The Race Factor in Disease as Illustrated by Pneumonia in the Negro. Internat. Med. Magazine, Philadelphia, 1894–5, iii. 186–189.

Chum (U. P.). Abdominal Tumors in the Negro Race. Maryland Med. Journ., Baltimore, 1888, xix. 81–83.

Conradt (L.) and Virchow (R.). Tabellarische Uebersicht der an Negern des Adeli-Landes ausgefuhrten Aufnalunen. Verhandl. D. Berl. Gesellach. F. Anthrop. Berb. 1894, 164–186.

Corson (E. R.). The Vital Equation of the Colored Race and its Future in the United States. Wilder Quar. Century Book, 8vo. Ithaca, 1893, 115–175. Also reprint (8vo., Ithaca, N. Y.).

Cunningham (R. McW.). The Negro as a Convict. Trans. Med. Assoc. Alabama, Montgomery, 1893, 315–326.

Cunningham (R. McW.). The Mortality and Morbidity of Negro Convicts. Med. News, Philadelphia, 1894, lxiv. 113–117.

De Albertis (O.). Genesi, Storia ed Anthropologia della Razza Negra. Revista Genova, 1889, viii. 290–308.

Dixon (N. A.). The Morbid Proclivities and Retrogressive Tendencies in the Offspring of Mulattoes. Journ. Amer. Med. Assoc., Chicago, 1893, xx. 1.

Edwards (C. L.). Folk-lore of the Bahama Negroes. Amer. Journ. Psychol., Worcester, 1888–9, ii. 519–542.

Giacomini (C.). Annotazioni Sulla Anatomia del Negro (Quinta Memoria). Torino, 1892, 35, xl. 17–64, 1 pl.; also reprint 8vo., Torino, 1892.

Hamilton (J. C.). The African in Canada (abstr.). Proc. Amer. Assoc. Science, 1889, Salem, 1890, xxxviii. 364–370.

Hoffmann (F. L.). Vital Statistics of the Negro. Med. News, Phila., 1894, lxv. 320–323.

Hoffmann (F. L.). Vital Statistics of the Negro. Arena, Boston, 1892, v. 529–542.

Hoffmann (F. L.). The Negro in the West Indies. Quarterly publication American Statistical Association, vol. iv. n. s. 20, June, 1895.

Hovelacque (A.). Bibliothèque Anthropologique IX. Les Nègres de l'Afrique sus-équatoriale (Senegambie, Guinée Soudan, Haut-Nil, 8vo.). Paris, 1889.

Johnston (G. W.). Abnormalities and Diseases of the Genito-urinary System in the Negro Women. Maryland Med. Journ., Baltimore, 1888–9, xx. 426–429.

Johnston (George B.). Comparative Frequency of Stone in the Bladder in the White and Negro Races. Proceedings Southern Surgical and Gynecological Association, November, 1895. (Abstract in Medical News, December 21, 1895, p. 695.)

Medical (The) and Surgical Observer, M. Vanderhurst Synk, M.D., editor and proprietor. Devoted to the interest of medicine, dentistry, and pharmacy, v. i. 8. Jackson, Tenn., 1893.

Michel (W.). Two Cervical Muscle Anomalies in the Negro. 16mo. N. Y., 1892. Reprint from Medical Record, N. Y., 1892.

Reyburn (R.). Type of Disease Among the Freed People (Mixed Negro Races) of the United States. Based upon the consolidated reports of over 430,466 cases of sick and wounded freed people (mixed African races), and 22,453 of white refugees under treatment from 1865 to June 30, 1872, by medical officers of the Bureau of Refugees, Freedmen, and Abandoned Lands. Med. News, Phila., 1893, lxiii. 623–627; also, 8vo. Washington, D. C., 1891.

Tipton (F.). The Negro Problem from a Medical Standpoint. 12mo. (1890). Reprint from New York Med. Journ., 1886.

United States Congress. Amendment proposed by Mr. Hoar to the bill (H. R. 7095) to provide for the erection of a National Home for Aged and Infirm Colored Persons, and for the maintenance of the inmates thereof. 53d Congress, 2d sess., H. R. 7095 m., December 6, 1894, royal 8vo. (Washington, D. C., 1894); also the bill; also the report to accompany the bill.

Masner (G.). Neber Liedelungen der Neger (Konigsberg). 8vo. Insterburg, 1891.

Weisbach (A.). Einige Schadel aus Ostapika, roy. 8vo. Wien, 1889. Reprint from Aun. d. K. Naturh. Hof. Museums, IV.

Knitzing (P.). Cardiac Diseases in the Negro Race. New York Med. Journ., 1888, xlviii. 713.

Kollock (C. U.). The Eye of the Negro. Trans. Amer. Ophth. Soc., Hartford, 1892, vi. 257–268.

Kollock (C. U.). The Eye of the Negro. Amer. Ophth. and Otol., St. Louis, 1893, ii. 121–126.

Macdonald (J.). East Central Africa Customs. Journ. Anthrop. Inst., London, 1892–3, xxii. 99–122.

McGuire (H.) and Lydston (G. F.). Sexual Crimes among the Southern Negroes

Scientifically Considered. Virginia Med. Monthly, Richmond, 1893-4, xx. 105-125. (Also 8vo. Louisville, Ky.).

McIntosh (J.). The Future of the Negro Race. Trans. South Carolina Med. Assoc., Charleston, 1891, 183-188.

McVey (B.). Negro Practice. New Orleans Med. and Surg. Journ., 1892-3, n. s. xx. 328-332.

Morrison. Notes sur la Formation du Pigment chez le Nègre. Congr. Internat. de Dermat. et de Syph. C. r., 1889, Paris, 1890, 130-134.

Morrison. Beitrag zur Frage von der Pigmentbildung in der Negerhaut. Monatsh. F. Prakt. Dermat., Hamburg, 1889, ix. 485-490. Also, Internat. Kong. f. Dermat. in Syphil., Paris, 1889.

Mortillet (De) (G.). Sur les Nègres d'Algerie et de la Tunisie. Bull. Soc. d'Anthrop. de Paris, 1890, 4s., i. 353-359.

Musser (J. H.). Notes on Pernicious Anæmia and Chlorosis in the Negro. Univ. Med. Magazine, Philadelphia, 1892-3, v. 770.

Popovsky (J.). Les Muscles de la Face chez un Nègre Achanti. Anthrop., Paris, 1890-1, 413-422.

Plehn (F.). Neber die Pathologie Kameruns Mit. Rucksicht auf die Unterden Kustennegern Vorkommenden Krankheiten. Arch. f. Path. Anat., etc., Berlin, 1895, cxxxiv. 539-549.

Prichett (J. A). Tuberculosis in the Negro. Alabama Med. and Surg. Age, Anniston, 1892-3, v. 386-421.

Reichard (P.). Deportment of Savage Negroes (Trans. from Das Ausland). Popular Science Monthly, New York, 1891, xxxix. 330-337.

Reyes (A. W.). Estudio Comparativo de los Negros Criollos y Africanos. Bol. Soc. Anthrop. de Cuba, Habana, 1879-86, i. 130-135.

Reynaud. Note sur le Crane d'un negre d'Afrique. Loire Méd., St. Etienne, 1889, viii. 1-7, 1 pl.

Richardson (C. H.). Observations among the Cameroon Tribes of West Central Africa. Mem. Internat. Cong. Anthrop., 1893; Chicago, 1894, 199-207.

Roy (P. L.). A Case of Cholera in a Negro. Medical Record, New York, 1892, xl. 11.

Schurtz (H.). Die Geographische Nerbeitung der Negertrachten Internat. Archiv f. Ethnog., Leiden, 1891, iv. 139-153, 1 pl.

Schurtz (H.). Das Unfurezser der Neger Ein Beitrag. zur Ethographie Afrikais, Internat. Arch. f. Ethnog., Leiden, 1889, ii. 9-31, 1 pl.

Scomp (H. A.). Can the Race Problem be Solved? Forum, New York, 1889, xxiii. 365-376.

Scholl (E. H.). The Negro and his Death-rate. Alabama Med. and Surg. Age Anniston, 1890-1, iii. 337-341.

Stuhlmann (F.). Ein Nahehe, Skelet und die Ethnologische Stellung der Lendic. Verhandl. d. Berl. Gesellsch. f. Anthrop., Berlin, 1894 (422-424).

Thompson (A.). Note on the Skin and Scalp of the Negro Fœtus. Journ. Anat. and Physiol., London, 1890-1, xxv. 282-285, 1 pl.

Tria (G.). Ricerche Sulla Cute del Negro; Contribuzione allo Studio sul Significato. Funzionale dello Strato Grannuloso e Sulla Diffusione del Pigmento Cutaneo. Gior. Internaz. d. Sc. Med., Napoli, 1888, N. S. x. 395-369, 1 pl.

Vanden Gheyn R. R. L'Origine Asiatique de la Race Noire. Compt. Rend. du Cong. Scient. Internat. d. Catholiques, Paris, 1891, sect. viii. 132-154.

Wellcome Library

Variot (G.). Observations sur la Pigmentation Cicatricielle des Negres, et Recherches Microscopiques sur les Nævi Pigmentaires d'un Mulatre. Bull. Soc. d'Anthrop. de Paris, 1889, 35, xii. 1463.

Vaughn (P. T.). Some Observations on Paresis in the Negro. International Med. Magazine, Philadelphia, 1895–6, iv. 81–91, 2 pl.

Virchow (R.) (Duika-Neger.). Verhandl. d. Berl. Gesellsch. f. Anthrop., Berlin, 1889 (545–551).

Virchow (R.). (Zwei Junge Bursche von Kamerun und Togo.) Verhandl. d. Berl., Gesellsch. f. Anthrop., Berlin, 1889 (541–545).

Virchow (R.). Kopfmaasse von 40 Ueiund 19 kru Negern. Verhandl. d. Berl. Gesellsch. f. Anthrop., Berlin, 1889, 85–93.

Walker (F. A.). Statistics of the Colored Race in the United States. Pub. Amer. Statistic Assoc., Boston, 1890, U S. ii. 91–106.

Werensky. Spuren vom Einflus Indiens auf die Afrikanische Volkernwelt. Verhandl. d. Berl. Gesellsch. f. Anthrop., Berlin, 1891, 377–80.

Witmer (A. H.). Insanity in the Colored Race in the United States. Alienist and Neurologist, St. Louis, 1891, xii. 19–30. Also in Allg. Ztschr. f. Psychiat., etc., Berlin, 1890–1, xlvii. 669–677.

Wortman (J. L.). The Negro's Anthropological Position. Cutting from the Analostan Magazine, Washington, 1891, i. 48–52.

Zingraff (E.). Uber Gesten und Mienenspiel der Neger. Org. d. Tauges. Aust. in Deutsch, Friedberg, 1891, xxxvii. 173–175, 192–197.