

Essays on syphilis. Essay I, Syphilitic sarcocele / by John Hamilton.

Contributors

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ESSAYS
ON
SYPHILIS.

ESSAY I.
SYPHILITIC SARCOCELE.

BY JOHN HAMILTON,
SURGEON TO THE RICHMOND HOSPITAL, DUBLIN.

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With the kind regards
of the
Author -

H. Arnold

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AN hospital surgeon, of moderate observation and diligence, cannot be long without discovering, in the mass of disease submitted to his care, something which really is, or that he believes to be, an addition to the knowledge already existing. Such a belief induces me to offer the following observations, hoping they will tend, in however small a degree, to elucidate the nature of the syphilitic sarcocoele. Many detached valuable observations have been made by authors at different times ; by Sir B. Brodie, Sir A. Cooper, Mr. Cusack, Mr. Colles, and more recently by Mr. Curling, in his excellent Treatise on Diseases of the Testicle. Amongst the earliest and best of these are, undoubtedly, the cases of Sir B. Brodie ; but neither has he, nor any of those I have named, given such a complete and satisfactory picture of this form of sarcocoele, including the local characters, the pathology, and particularly the constitutional symptoms which accompany it, as to preclude the necessity of further observations.

Should the Profession receive this Essay favourably, it is my intention to follow it by others, until the more important parts of syphilis shall have been treated of in turn ; not in any regular sequence, but as I shall consider my observations sufficiently complete.

WESTLAND-ROW,
Oct. 1849.



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ESSAY I.

SYPHILITIC SARCOCELE.

SYPHILITIC Sarcocoele is generally a late symptom; it may occur from one to six years, or even more, after infection. There are two forms which it is important to distinguish, as they require very different treatment. I have ventured to name them, the Simple Syphilitic Sarcocoele, and the Tubercular Syphilitic Sarcocoele.

First: The Simple Syphilitic Sarcocoele is met with in persons of healthy constitution, and when accompanied, as it usually is, by other secondary symptoms, they are regular, well marked, and uncomplicated. As attendants on this form I have seen the mottled, papular, pustular, and scaly eruptions, and those dusky red spots, a little raised and often a little scurfy, which were called by the older writers syphilitic blotches; iritis; the more healthy (if such a term is allowable) forms of inflammation

of the bones and periosteum; and of ulcers in the throat.*

Though a late symptom, yet between it and the primary infection there is generally a chain of connexion by some well-marked secondary affections. When the sarcocele is unaccompanied by these, their previous existence and the history help to distinguish it from the chronic sarcocele, from which there is otherwise no local difference or mark of distinction.†

* Sir A. Cooper's description of the secondary symptoms observed to accompany the "venereal inflammation of the testicle" is vague and meagre. "The enlargement of the testicle is rarely a concomitant of the syphilitic sore throat only, but it frequently accompanies the venereal eruption and periosteal inflammation."—p. 105, quarto edition. Mr. Curling, in his *Treatise on Diseases of the Testicle*, is scarcely more satisfactory: "It is usually accompanied with a pustular or scaly eruption of a venereal character, with periosteal inflammation, and not unfrequently with iritis."—p. 320.

† On this point Howard says, vol. i. p. 84, that "the distinction between indolent scirrhus (chronic sarcocele) and venereal sarcocele is so difficult, that nothing but its giving way or proving rebellious to a full and fair operation of mercury can decide the matter. And nothing short of the same operation can make clear the difference between it and the worst species of hæmatocele, when there is a grumous dissolution of the whole body of the testicle, under the albuginea." As we now know the action of mercury to be equally beneficial, whether the sarcocele is syphilitic or non-specific, the action of mercury is no test of distinction. But the last observation is quite true. A man was admitted into the Richmond with sarcocele, which, from its character and his previously having had syphilis, was thought to be a symptom of

In the simple syphilitic sarcocele the testicle will be found enlarged to the size of a lemon or turkey-egg, of an ovoid or pyriform shape, sometimes flattened at the sides; either uniform on the surface, or with the epididymis distinguishable as an irregular ridge along the back; hard, particularly in the situation of the epididymis; heavy, with the integuments of the scrotum of a dusky red; generally neither tender nor painful, except that the hanging weight causes a feeling of uneasiness in the loins and inside of the thighs. In this respect it differs remarkably from gonorrhœal orchitis, where the tenderness is so exquisite and the pain usually so great. I have never met with the nocturnal exacerbation of pain noticed by Sir A. Cooper and Mr. Curling, the last of whom mentions "the testis becoming occasionally more tumid and painful during the evening exacerbation," as a point of distinction between venereal and common chronic sarcocele.

The essential symptoms, therefore, of the simple syphilitic sarcocele are, its occurring in persons of healthy constitutions, with the more simple and manageable forms of secondary symptoms, its large size, and slow progress. The following case is an example.

CASE I.—James Donnellan, aged 27, a house painter, that disease, and treated accordingly. Its real nature after a time became apparent. I removed it, and found a perfect specimen of areoloid cancer.

looks healthy and is so generally: admitted into the Richmond Hospital, July 23, 1844. Has swelling of the left testicle, the size of a turkey-egg, of a pyriform shape; the body hard and discernible from the epididymis, which is very irregular and hard, the hardness extending a little way up the cord. The integuments of the scrotum reddish but wrinkled. No pain or tenderness, but some weakness of the loins, and some pain at the upper part of the front of the thigh. Four or five years ago had a sore on the penis, which has left no cicatrix. His history is imperfect, but the only secondary symptoms he appears to have had were pains in the bones; and there is a bony node on the lower third of one of the tibia, but no soreness in it. The testicle began to enlarge without pain three months ago. He has not had any treatment; pulse 120; tongue clean; sweats at night, and has lost flesh.

One drachm of mercurial ointment to be rubbed in the thighs every night.

29th. Has rubbed in five drachms: his mouth is beginning to get sore; the testicle is softer and smaller than before. To repeat the friction.

31st. Mouth fully sore. To omit the frictions. The testicle is softer and, I think, smaller.

Aug. 14th. The body of the testicle soft and natural, the epididymis still hard, but the swelling of the whole lessened nearly by half. He has used occasional frictions since, so as to keep the mouth sore.

I discontinued them to-day, as there is slight mercurial tenesmus.

Sept. 2. He resumed the frictions on the 17th August, and continued them more or less regularly till a few days ago. To-day he was dismissed cured, there being little difference between the two testicles, and in other respects very well. He was a little more than five weeks under treatment.

In this form the disease generally only effects one testicle, and I have never seen suppuration occur. A fact essential to be remembered is, that in syphilitic sarcocele, whether simple or tubercular, there is almost always effusion of water into the cavity of the tunica vaginalis, constituting hydro-sarcocele; a small circumscribed hydrocele of the cord also is not uncommon. In every case of moderate-sized hydrocele, therefore, too much care cannot be used in examining if there is enlargement of the testicle; otherwise, in drawing off the water, the trocar might be passed into the body of the testicle. Sir A. Cooper, with his usual candour, confesses this to have happened to himself; and when a student I witnessed the following case:—

CASE II.—M.C. ætat. 32. Has a swelling of the left side of the scrotum, pyriform, tense, elastic; the wrinkles of the scrotum obliterated; of a dull, shining, red colour, with some veins on the surface. Not tender unless pressure is applied across the middle of the tumour, which may be said to be about

the size of a cocoa-nut. The tumour feels heavy. There is pain shooting up the cord into the left loin. Some swelling also of the right scrotum, which is soft, flabby, and fluctuating.

Three years before had chancre and bubo, and was afterwards affected with pains in the bones. Three months ago the right testicle became swollen nearly as big as the left is now, with some pain ; it got smaller, and a month after the left became swollen.

After a very cursory examination, the surgeon to whom the patient applied decided that the swelling of the left side of the scrotum was hydrocele, and resolved to tap it. He passed in a trocar and canula, but on withdrawing the trocar only a few drops of blood flowed out ; the canula was withdrawn, and a second puncture made with no better result ; he now did at last what he should have done at first, viz., made a careful examination, and discovered that what he had taken for a hydrocele was a syphilitic sarcocele, with a very small effusion of fluid into the tunica vaginalis.

Second: The Tubercular Syphilitic Sarcocele is much more common, and differs materially, both in local and constitutional symptoms, from the simple form.

The testicle is enlarged from two to four times the natural size, but the increase of size is generally not remarkable ; of very irregular shape, so that the ordinary form of the testicle is often entirely lost, pre-

senting instead an uneven, hard, knotty mass, in which it is impossible to distinguish the body from the epididymis. At other times the irregularity is seen to arise from the enlarged and indurated epididymis, which gets of a great size compared to the body of the testicle, that remains but little altered, and readily distinguishable from it. In the gonorrhœal orchitis we well know that the inferior globus of the epididymis is usually the part most enlarged and hard, and often keeps so long after the testicle has recovered ; whereas in the tubercular syphilitic sarcocele, I have more frequently met with enlargement of the upper globus of the epididymis, sometimes excessive and disproportioned to the other parts of the testicle. The reason of this may be, that in gonorrhœal orchitis the inflammation extends from the vas deferens at the inferior part of the epididymis to the cellular tissue external to it, with effusion of lymph, causing swelling and induration ; whereas in the tubercular syphilitic sarcocele, the swelling of the superior globus of the epididymis depends on the presence of a tubercle imbedded among the vasa efferentia of which it is constituted. I saw, in consultation with Sir Philip Crampton and Mr. Newland of Camden-street, a young gentleman suffering from very aggravated syphilitic disease. He had had a papular eruption, the faded spots of which remained, but the symptoms when I saw him were subcutaneous tubercles, two the size of chesnuts, painful and

tender, at the inside of each arm, above the inner condyles ; another on the outside of the lower part of the right leg, which had suppurated and ended in a large foul ulcer, phagedenic, deep enough to contain the half of an orange, and which laid bare the peronei tendons. Iritis of the right eye, of the most intense character, that baffled all treatment, a large tubercle forming in the iris, bursting, and filling the anterior chamber with matter, and terminating in the giving way of the eye and the total destruction of the organ. Besides these symptoms he complained of uneasiness in the right testicle, and I found the epididymis at its upper part enlarged to the size of a hazel nut, hard, and very tender; the body of the testicle unaffected, except that it might be a little fuller. In this case I have no doubt that the globus superior was the seat of a tubercle, to the formation of which there was such a tendency in other parts. Treatment, however, gradually caused its absorption, and prevented the deposition of others.

We now and then find the testicle not quite so irregular, particularly in the beginning. I have met with it of a columnar shape, hard, but quite even; after some duration, however, it almost always becomes uneven and knotty. It is seldom either persistently painful or tender, and only inconvenient when large, from its weight causing pain, as in other diseases of the testicle, in the loins. From the small

amount of inconvenience, I have known patients quite unaware that they had any disease of the testicle.

Both testicles are usually affected, and one is found to be worse than the other; and when both have been long diseased, and the disorganization great, I have ascertained that sexual desire has been absent, and that neither erection nor seminal emissions took place; both returning, however, as treatment effected the restoration of the testicle to its normal condition.

The constitutional symptoms are very characteristic of the effects of the syphilitic poison in bad and scrofulous constitutions. The patient is sallow and broken down in appearance, and presents the worst form of secondary symptoms, or those which have been, from the late period of their occurrence, appropriately named tertiary symptoms by M. Ricord. Soft nodes, mostly on the cranium, with caries of the bones;—sore throat, either the large foul ulcer at the back of the pharynx, deep and more or less circular, or that form into which struma largely enters, and which I believe to be of a lupoid character, marked by irregular ulceration at the back of the pharynx, with copious secretion of yellow muco-purulent matter, extending to the arches of the palate, to the soft palate and uvula, and causing more or less destruction of these parts;—the subcutaneous tubercle, sometimes indolent, sometimes ulcerated, with the usual characters of lupoid ulcera-

tion ;—the annular or serpiginous pustulo-crustaceous eruption, spreading in rings, or some less regular shape, of quickly scabbing superficial ulceration. I have found this eruption and the soft cranial node such constant attendants on the tubercular syphilitic testicle, that whenever a patient with them presents himself, I at once look for disease of the testicles, and often find it, although the patient himself, unaware of its existence, had made no complaint.

Very recently (May 19, 1849), a friend showed me a very exaggerated case of strumous syphilis, in which there had been destructive ulceration of the throat, with loss of large portions of the palate bones ; soft nodes, and caries of the cranium, which had left deep cicatrized depressions covered with crusts. Though no disease of the testicles had been complained of, or supposed to exist, I found both affected ; the left too large, and the epididymis in the right forming a hard enlargement on the body.

With regard to the annular or serpiginous pustulo-crustaceous eruption, as I do not recollect to have met with any description where its formation was traced from the beginning, perhaps I may mention a case where I had an opportunity of studying the steps of its development. A man was admitted into one of my wards in the Richmond Hospital, with large syphilitic pustules over the back, shoulders, &c. A pustule would dry up and scab ; while doing so, a number of small pustules would form round this,

dry up also, and scab. The first by this time would have thrown off its scab, leaving a scurfy, flat, reddish surface in the middle of the small circle of crusting pustules; another circle would come out just beyond these, and while going through the scabbing process, the others would have thrown off their crusts, leaving the inner part, as the first pustule had done, red and scurfy. When no treatment has been used, and in bad constitutions, the process is more severe; the pustules become ulcers, covered by dark brown or greenish scabs, of larger or smaller size; sometimes prominent, like rupia; sometimes flattened in the centre, almost like favi: the last occur where the ulcers are small, circular, and deep.

Cutaneous tubercles, and even papules, in bad constitutions and under the malign influence of dissipation, dirt, and neglect, may run the same course.* Subcutaneous tubercles which ulcerate may spread in circles, or with a margin of quickly crusting ulceration of less regular form; the centre healing as the circumference takes on the diseased action. M. Ricord calls this "tuberculo-crustaceous;" but I would rather confine this term to the cutaneous tubercle when it runs this course, and call the subcutaneous tubercle, syphilitic lupus; as in the character of the tubercle, the aspect of the ulcer and of the scab, and in the puckered cicatrix left behind, they

* See Plate I.

resemble ordinary lupus in every respect. As I have already said, the shape is not always regular and circular, but the peculiarity is a healed centre with a spreading margin. They are sometimes of very great size : I have seen a purple scurfy patch occupying the greater part of the back.

The following case exhibits a good example of the combination of the tubercular-syphilitic disease of the testicle, with the pustulo-crustaceous form of the eruption.

CASE III.—*Tubercular Syphilitic Sarcocoele ; Corona Veneris ; Alopecia ; Pustulo-crustaceous Eruption ; Periostitis.*

John Paiden, aged 31, a labourer, admitted February 11, 1848, into the Richmond Hospital, No. 5 ward.

There is an extensive patch of ulceration on the centre of the forehead (corona veneris) consisting of many small ulcers, like lupoid ulcers, leading down to carious bone, which can be felt hard and rough at the bottom. The ulcers communicate with each other under the skin. At the sides they lead down to thick, soft periosteum, and not to carious bone. The whole frontal region is swollen and rather uneven ; in some parts sore to the touch, and slightly discoloured. He suffers little at present from pain in the head, but did so severely before it broke. He has noise in the ears like a sea-shell, and the hearing of the left ear is impaired ; sleeps badly at night ; short

slumbers and frightful dreams ; some weakness of the limbs, and some numbness of the finger ends, particularly of the fore and middle fingers. Vision perfect. Has an eruption over the body, particularly on the right arm, left shoulder, and side of the chest, on the thighs and on the back, of large patches three or four inches in diameter,—the one on the back nearly six inches, of superficial ulceration, covered with raised flat scabs of a brownish green colour, which is chiefly observable at the circumference, the scabs adhering there, but having separated in the centre, leaving a dull red, smooth surface, rather scurfy. He says they commenced with small red pimples, which became yellow; these crusted, but continued small, and finally left scurfy spots, of which some are apparent on the left fore-arm. Others ulcerated and scabbed, and as they healed, fresh ones formed around them, extending gradually to the present large patches.

On the left shoulder are two red subcutaneous tubercles (syphilitic lupus). Periostitic pain and tenderness over the acromial end of clavicles. The hair has fallen off a good deal, and there are some scabby spots over the scalp. Both testicles are diseased, enlarged, particularly the right, irregular, and rugous on the surface, so that all distinction of natural structure is lost ; hard, but neither tender nor painful, and only annoying from their weight.

There is a cicatrix of a former phagedenic sore on

the penis, which has destroyed a small portion of the under extremity of the urethra at its orifice.

Three years ago he contracted the sore on the penis ; he did nothing for it till the end of eight weeks ; he then took mercury for three weeks, till his mouth became very sore and his teeth loose. The sore healed, but as phymosis remained, he was cut ; the ulcer returned, and eat away a portion of the glans : black wash healed it. He never took mercury since.

Some months after, he got secondary symptoms,—a red eruption over the body, swelling of the knees and ankles ; and when these subsided, he was occasionally affected with sore throat, and for the last two years headach ; but the forehead only became swollen five weeks since. It broke with much relief from pain in the head and in the neck, before this so severe that he could not rest his head on the pillow. He is quite uncertain as to the time the testicles first swelled, but thinks it was at an early period of the disease.

Feb. 17th. He took for a few days, to improve the deranged state of the digestive organs, infusion of colombo, tincture of gentian, and sulphate of magnesia ; and this object having been accomplished, he was ordered a pint of compound infusion of sarsaparilla, with fifteen grains of hydriodate of potash, in the day, in three portions.

26th. The most decided amendment has taken place. The many small ulcers on the forehead have

cleared, and *are closing without exfoliation*; what seems to be taking place is, that healthy granulations are sprouting from the external surface of the inner table of the bone, and causing absorption of the dead portions of the external plate. He is proportionately well of his other symptoms.

March. As the improvement ceased to be so rapid, the symptoms in fact having become stationary, he was afterwards put on five grains first and then ten grains of blue pill every night, with five grains of hydriodate of potash in compound infusion of sarsaparilla morning and mid-day. The left testicle is remarkably better, much diminished in size, the body soft and nearly natural, at the back the rugous and enlarged epididymis can be felt, but softer. An improvement is also perceptible in the right testicle, the body beginning to be distinguishable from the epididymis.

April 27th. Both testicles getting well; in the left, the body soft and natural, the epididymis a little enlarged and hard; the right about one-third larger than natural; the upper head of epididymis hard and enlarged, the lower very little so; the body a little firmer than natural; no uneasiness in either testicle. There is still a small opening over the bone on the left side of the forehead, the right side quite well, the node gone, and all ulcers healed. The tubercles nearly gone. General health excellent. Is taking five grains of the blue pill at night, and the hydriodate of potash and sarsaparilla twice a day.

May 1st. Went out well, after having been in eleven weeks. A little hardness of the right epididymis was the only remains of the disease.

As I have already said, I have never seen the simple syphilitic sarcocele suppurate; but in the tubercular form the inflammation does occasionally, though rarely, pass into slow suppuration, which, after the matter has escaped, terminates either in fistulous openings discharging thin matter, or in the protusion of a fungus. I was requested to meet Dr. Bowles with the view of performing tracheotomy on a young man affected with urgent laryngeal disease. He was labouring under great dyspnœa from syphilitic ulceration of the larynx; able only to speak in a whisper, with stridor in the respiration; and during the night he had had several spasmodic attacks of suffocation, threatening death. There were several soft nodes on the forehead and clavicle; one on the spine of the scapula, which had opened, and left an undermined ulcer with a large portion of whitish dead bone at the bottom. Both testicles were enlarged, the left most so, irregular in shape; the scrotum dusky red, with many small fistulæ discharging thin matter. He had contracted a chancre three or four years before, followed by secondary symptoms in various forms, and had taken mercury irregularly. The laryngeal symptoms were relieved without the operation. Three months after he came to me, with a fungus the size of a chesnut protruding from one of the fistulous openings. He was cured

by the application of nitrate of silver and compression.

In delicate scrofulous men, therefore, we may have suppuration, fistulæ, and fungus, from inflammation of the tubercular syphilitic sarcocoele; but in healthy constitutions, and in the simple form, such terminations are scarcely ever met with.

The pathological changes observed in the testicle are twofold:—

First: A deposition of firm lymph of a pale yellowish colour into the interstitial cellular tissue external to the tubuli testis, as well, probably, as into the tubuli themselves. For if it was not into the cellular tissue external to them, we ought to be able to see the arrangements of the convoluted tubuli, which we are not, the section appearing homogeneous, with the exception of some fibres shooting through it. I took the sections of two testicles removed for lipoma, and macerated them till putrefaction began. Though when first put into the water there was no appearance of tubes, the surface perfectly smooth, grey, and uniform, yet, when removed, the lymph had been so softened away by the putrefaction, that the semeniferous tubuli were quite distinct. This proves lymph to be effused external to the tubuli. On the other hand, if it was not deposited also into their cavities, the structure of the part would be less firm; for as it is likely that the seminal secretion in them would antagonize their complete obliteration, when they were divided, their

small apertures, though not visible to the naked eye, would yet give a looser appearance to the section than if there was a deposit of firm lymph in the hollow of the tubes, and would be discernible by a good lens.* I think this uniform deposition of firm yellowish lymph is the pathological condition in those cases which I have named simple syphilitic sarcocele; but as the patients are otherwise healthy, and usually get well, opportunities of examination are rare.

In the Museum of the Park-street School of Medicine we have three well-marked specimens. In two of them the section presents a firm, nearly homogeneous surface, some fibrous striæ radiating from the posterior surface, where there appears to be a greater condensation of structure. The third has been injected; the testicle is enlarged and consolidated by the deposition of yellowish lymph; the injection has entered freely, particularly at the lower part, where there is a bright red patch of it; this proves its organization.† In the Richmond Hospital Museum there is a testicle, removed from a man who was affected with a healthy form of secondary syphilis and syphilitic sarcocele, but who suddenly died of disease of the heart. The testicle is enlarged to more than twice the natural size; a section shows it to be converted into a firm, nearly uniform mass of

* See Sir B. Brodie's Cases, Med. and Phys. Journal, vol. lvi., quoted also by Curling.

† For many beautiful preparations of diseased testicle, the Museum was chiefly indebted to Mr. Cusack.

a pale yellowish colour, a faint line being visible, marking out the epididymis from the body of the testicle; there was a still more marked difference to the touch, the epididymis feeling much harder than the body. Though the section appeared nearly homogeneous, a lens showed slight shreddy irregularity of surface in the body of the testicle. It was very vascular; the cord was not diseased. Both in this form and in that I am about to describe, the inflammation spreading to the tunica vaginalis, lymph is poured out, and adhesion takes place between the serous covering of the testicle and scrotum, and the cavity of the tunica vaginalis is more or less obliterated, or, serous effusion exuding, it is dilated into a hydrocele. In some cases, where there were complete adhesions below, a small hydrocele of the cord existed above.

Secondly: A much more common pathological appearance of syphilitic disease of the testicle is the presence of one or more tubercles in the epididymis or body of the testicle. We not only meet with it more frequently, because the tubercular is more common than the simple syphilitic sarcocele, but also because the disease of the testicle is sometimes only a small part of a general state of disease, under which the patient sinks, and we, therefore, have more frequent opportunities of making *post mortem* examinations. These tubercles are of a yellow colour, of a consistence rather less firm than that of coagulated lymph. Very small at first, they gradually

enlarge, and, according to their duration, may vary in size from that of a hemp-seed or split pea to that of a chestnut, or even larger. They have a well-marked cyst, which can, by careful dissection, be separated from the yellow inorganic substance contained in them, and from the glandular substance of the testicle in which they are imbedded: the yellow substance within the cyst has sometimes a laminated arrangement. It is proved to be inorganic by not receiving any injection when the testicle has been most successfully injected. The bright pink of the one offers a pretty contrast to the yellow colour of the other (see Plate II., in which plate also the encysted nature of the tubercles is well shown). In some of the preparations I have examined, the yellow tubercle has gradually so increased as to have caused absorption of the glandular structure of the testicle, and finally to have taken its place.

When the progress of the yellow syphilitic tubercle is not stayed by treatment after having attained a certain size, it begins to soften in the centre, or at the side nearest the surface of the testicle, where it causes an inequality; adhesion takes place between the tunica vaginalis testis and scroti; and at last these structures, with the tunica albuginea, give way, and the surface of the tubercle becomes adherent to the skin of the scrotum. Suppuration of a slow, indolent character ensues; the abscess bursts, and discharges very little matter and very thin, and terminates in fistula or lipoma, and total disorganization

of the testicle : the same disorganization may ensue without any suppuration. The tubercles are absorbed, but at the same time the glandular structure of the testicle disappears ; nothing remains in the place of the atrophied testicle but a hard, irregular, fibro-cartilaginous, contracted mass, in which ossific matter is at times deposited.

In the following case, the testicles were atrophied without previous suppuration.

CASE IV.—*Extensive Tuberculo-crustaceous Eruption ; Atrophy of both Testicles ; Hydrocele.*

Patrick Byrne, aged 36, shoemaker, a sallow, sickly-looking man, with extensive antero-posterior curvature of the spine ; admitted into the Richmond Hospital, November 14th, 1848. Has extensive patches of tuberculo-crustaceous eruption over the body, particularly about the back of the shoulders, marked by rings of ulcers, covered with brownish scabs, the middle red and shining or scurfy. On the forehead is a group, nearly the size of the palm of the hand, of little tubercular spots, in rings intersecting each other, and some of these ulcerated and scabbed over. On the abdomen, a little to the left of the umbilicus, is a large, round patch, cicatrized, pink, and scurfy in the centre, but with a circumference of large brown scabs : at the epigastrium a smaller one.

The scrotum is swollen to about the size of a

cocoa-nut ; the swelling is from effusion of water, chiefly in the left tunica vaginalis, which is tense and tender on pressure ; and the testicle, on account of the fluid, cannot be fully examined ; but on the right side, the testicle can be felt reduced to the size of a hazel-nut, hard and nodulated.

Four years ago he had chancre, which destroyed the frœnum. He took mercury for it to salivation. A year after, the right testicle began to enlarge, and continued to increase for six months, when it was tapped, and about half a pint of fluid was drawn off. Two months after that, he observed the left testicle to enlarge. He has been several times tapped. The eruption began a year ago, with small tubercles on the forehead ; and the large patches on the body commenced each with a single pimple, ulcerating and scabbing, and healing in the centre, while it spread in a circle of fresh pimples. For many months he has had neither erections nor emissions.

16th. The fluid was withdrawn from the left tunica vaginalis, and the testicle was found perfectly atrophied like the right. To take ten grains of blue pill at night, and five grains of the hydriodate of potash twice a day, with compound infusion of sarsaparilla.

His mouth was made slightly sore, and on this account and diarrhœa, the treatment was suspended for a fortnight ; he was then put on the sarsaparilla and hydriod. potass. as before, and five grains of blue pill every night.

He was dismissed cured of the eruption and greatly improved in his general health, on the 2nd of January, 1849. The testicles were unaltered, but the fluid had not accumulated when he left the hospital.

The treatment of the two forms of syphilitic disease of the testicle is not the same ; each requires a mode of treatment peculiar to itself. In the simple syphilitic sarcocele, a steady and somewhat protracted course of mercury should be employed ; it is, in fact, the only certain means of cure. I have frequently seen the non-mercurial treatment tried, and have observed it to be very unsuccessful ; and that mercury had to be given at last, after much time had been lost and the integrity of the testicle jeopardized. Five grains of blue pill, or what I prefer, five grains of mercury and chalk, guarded with one-eighth of a grain of opium, or, where the bowels are inclined to be irritable, one-fourth of a grain, should be taken three times a day ; or the patient should rub in daily one drachm of strong mercurial ointment, till the mouth is well affected, the gums ulcerated, and salivation induced. The mercurial action should be sustained for six or eight weeks ; longer than the latter period is generally unnecessary, for though the testicle may not be, at the end of this time, quite restored, yet the improvement commenced during the exhibition of the mercury goes on after its discontinuance, till the testicle has regained its natural state. The same applies to the

hydrocele. I have known the water remaining after the discontinuance of the mercury to be gradually absorbed. The other secondary symptoms accompanying the sarcocele, eruptions, affections of the bones, or of the throat, generally yield rapidly to the treatment, and have quite disappeared while the testicle still continues hard and enlarged. The first sign of amendment in the testicle is observed in the body, which becomes soft, and when it could not be previously distinguished from the epididymis, the whole forming one ovoid or pyriform mass, it can now be made out, and finally gets quite natural in size and consistence, while the epididymis continues hard and enlarged. After the mercury is discontinued, from three to five grains of the hydriodate of potash thrice daily for a fortnight assist in completing the cure.

With regard to local means: when there is pain and tenderness, the application of a few leeches, and the acetate of lead lotion, are useful; and when these are not called for, we may direct a little mercurial ointment to be rubbed over the scrotum, or spread on a piece of lint enveloping the testicle, and kept in its place by a suspensory bandage. Later, when the epididymis continues indurated, the iodine ointment rubbed on the scrotum, at the same time that the hydriodate of potash is given internally, is a valuable discutient. The iodine ointment of the Pharmacopœia is too strong for the tender skin of the scrotum, which it excoriates, and causes much

pain ; it should be diluted at first with an equal proportion of lard. Where there is no pain or tenderness, I do not think the recumbent position necessary, nor confinement to the house when the weather is fine. Strapping, so useful in the later stage of gonorrhœal orchitis, I have not found of any service in the syphilitic sarcocele.

If there is water in the tunica vaginalis in small quantity, it may be left alone, as it is usually absorbed under the treatment ; but if it is in larger quantity, it had better be drawn off ; its abstraction relieves the absorbents, lessens the inconvenient bulk of the swelling, and assists in ascertaining the exact condition of the testicle. A small trocar and canula should be cautiously used. When the quantity is large, the operation may be required a second time ; but after the testicle is well it rarely re-accumulates.

CASE V.—*Simple Syphilitic Sarcocele with Hydrocele, twice tapped, and then not returning.*

James Kearney, aged 30, a horse-shoer, a healthy looking man ; admitted into the Richmond Hospital May 4th, 1848. The right side of the scrotum is swollen to the size of a cocoa-nut, firm but elastic, and evidently containing fluid, being transparent in the sunshine ; it is, however, heavy, as if there was also enlarged testicle. Many veins are visible on the surface of the scrotum, which is redder than natural ; there is no pain or tenderness, except a little

tenderness going up to the loins; the cord is rather thick and harder than natural. Some spots of mottled eruption over the belly; but no other symptom.

The history is imperfect, but he has had several attacks of primary syphilis, both chancre and suppurated bubo. Two years ago he suffered from pain in the loins, and a rash broke out which was cured by mercury and the hydriodate of potash.

5th. As it was clear that a large part of the swelling was owing to fluid in the tunica vaginalis, I punctured it with a small trocar and canula, and drew off six ounces of clear yellow serum.

The testicle was then found towards the bottom of the scrotum, enlarged to three times its natural size, the body hard, with the epididymis distinguishable, and forming the chief bulk of the swelling. R. Pil. hydrarg. gr. v. ter in die.

13th. His mouth has been sore for the last few days, kindly, without griping; but the water has rapidly re-accumulated. I therefore again drew off four ounces of the same yellow serum. The testicle felt softer, but the size nearly as before.

After this no further effusion took place into the tunica vaginalis; the mercurial action was steadily kept up, and he was discharged well.

I saw him for an attack of piles, May 9th, 1849, just a year after. No hydrocele had formed, and the little induration of the epididymis was all that distinguished the one testicle from the other.

Some surgeons have great confidence in the hydriodate of potash in curing syphilitic diseases of the testicles, and the accompanying symptoms in broken constitutions ; my experience leads me to be less sanguine. I have, in such cases, tried this medicine either simply in water, or with the infusion or compound decoction of sarsaparilla, and in fair doses, for several weeks, without completely curing the disease. The constitution and the local affections have, at first, exhibited rapid signs of amendment, but after a time this improvement has stopped. I do not deny that cases of the tubercular syphilitic sarcocele may be cured by the hydriodate of potash alone ; but after having tried it for weeks in some cases, I have only succeeded in procuring partial amendment; and I have met with many cases where this remedy had been tried for many months in doses of ten grains, two or three times a day, with no better success. (See Case VII.) The plan which I would recommend, and which, except where the testicles have been totally disorganized, I have never known to fail, is a combination of the mild mercurial treatment with the administration of the hydriodate of potash at the same time. The latter, by its beneficial influence on the constitution, enables it to bear the mercury, which radically cures the effects of the syphilitic poison, and expels it from the system.

Fifteen grains of the hydriodate of potash are dissolved in a pint of the compound infusion or com-

pound decoction of sarsaparilla ; of this the patient takes a third part in the morning and at mid-day, and ten grains of blue pill at bed-time. In a week or ten days the gums get a little sore, when the blue pill may be reduced to five grains at night. He should go about as usual, and be a good deal in the open air, and the diet should be generous. The dilute iodine ointment may be applied to the testicle.

The good effects of this treatment are soon apparent ; the sallow complexion so constant with this form of disease is replaced by a healthy hue, and he gets into flesh. The scabs of the pustulo-crustaceous eruptions dry up and fall off, lupoid ulcers heal, subcutaneous tubercles diminish (which may be hastened by painting them frequently with strong tincture of iodine), the prominent soft nodes flatten and finally disappear, and the misshapen testicle gradually approaches its normal shape ; first the body softens, and, if it had been shrivelled, plumps up again, and lastly the epididymis. It may, however, remain hard long after the testicle is otherwise well ; and in some cases never loses an indurated feel, though I believe the functions of the testicle or the sensations of the patient are very little impaired.

The process of cure may occupy many weeks, or two or three months ; even if the symptoms yield, I usually continue the treatment for three months, with an occasional interval of a few days without medicine. We should remember that we have not only to cure the symptoms of the present disease, but to

eradicate a poison from the system, and a long contracted habit of diseased action. I have often been surprised at the seemingly hopeless state of disease of the testicle cured by this mode of treatment. A hard, knotty, fibrous mass, without apparently a trace of the natural form, gradually softening, reducing, and assuming the normal state ; and this after so long an abnormal condition, that one would have thought the habit of diseased action had made the organic changes permanent.

CASE VI.—*Syphilitic tubercular Sarcocoele; Periostitis.*

Mr. A. B., ætat. 30, consulted me for enlargement of the right testicle, December 17th, 1847. He has frequently had chancres, for which he took mercury both in pills and frictions, but not to salivation. He has had pains in his bones and sore throat, but no eruption. He also has had gonorrhœa often, but there is no symptom of stricture.

The scrotum looks red, and as if swollen, but is not œdematous ; the testicle is about four times the size of the other, of very irregular shape ; epididymis evidently much enlarged, but not very readily distinguished from the body of the testicle ; it is rather flat at the sides, and its surface very uneven. Not painful, but uneasy ; and after hanging a long time, some uneasiness is felt in the loins ; rather tender on pressure, particularly about its lower third : the cord is healthy.

He has had it *two years*, and has been treated by a homœopathic doctor at different times, and from the rest and regimen recommended by him he got somewhat better, but never well.

When affected with gonorrhœa many years ago the testicle became acutely inflamed, but was readily cured by leeches and other means. The homœopathic doctor, however, told him that the leeches then applied were the cause of the present disease ! There is also periostitis of the middle of the left tibia, which is swollen, painful at night, and very tender. The disease of the testicle was evidently the syphilitic tubercular sarcocele, on which account, and the length of time it had existed, it would most likely be very hard to cure.

Six leeches to be applied to the right scrotum, and in a few days after, when the leech-bites are well, the iodine ointment to be applied. A suspensory bandage. R. pil. hydrarg. 3ss. ext. hyosciam. gr. xv. in pil. x. Sumat 1 ter in die.

December 24th (a week after). Better ; the swelling of the testicle is reduced, and the tenderness and uneasiness gone ; but there is no essential change in the shape of the testicle, which is still enlarged and irregular. R. pil. hydrarg. 3 i. in. pil. xii. Sumat. ii. horâ somni. Hydriodat. potassæ gr. iii. bis in die e cyatho decocti sarsaparillæ.

January 7th, 1848 (three weeks). Very much improved ; the testicle half the size it was before, and not more than twice the size of the other ; and

the bulk seems to be more from the epididymis than the body of the testicle, which I think I can feel more distinctly ; no pain or uneasiness, no tenderness. *Pil. hydrargyri gr. v. omni nocte.* Omit the hydriodate of potash and sarsaparilla for three days, and then recommence it.

January 20th (five weeks). A remarkable improvement; the testicle the same size as the healthy one, except a slight enlargement at the lower end of the epididymis. The feel of the body of the testicle is only a little more uneven than natural, but not harder. No pain or tenderness, or enlargement of the cord. To take one pill each night for a week longer, and the hydriodate of potash once a day, for that time, then to stop altogether. The improvement in his general health has also kept pace with that of the testicle.

March 12th. I saw him to day. He has got married since; the testicle is perfectly well.

In this case I began with a few leeches and the blue pill, because there were evidences of acute supervening on the chronic disease; but as soon as the pain and tenderness of the testicle subsided, I commenced the treatment I have recommended in these cases.

I could bring forward many cases, some of very aggravated disease of the testicle, which were cured by the combined plan of treatment. I shall not, however, trespass on the reader's patience, except with the following instance, in which the hydriodate

of potash had been previously given in ten-grain doses unsuccessfully.

CASE VII.—Mr. H., Feb. 1849, consulted me for sore throat, which exhibited redness of the back of the pharynx, a superficial irregular yellow ulcer at the left side, extending up above the level of the soft palate, with hard pharyngeal incrustations and tough mucus in the morning, and deafness of the right ear. Pain in the right shoulder, without any well-marked periostitis, but seemingly in the joint. Disease of the right testicle, which is not quite twice as big as the other, but very irregular; the swelling apparently chiefly formed by the epididymis, from which the body cannot be distinguished. His general health is impaired, he is rather sallow, and has bad rest at night from the pain of the shoulder; but the testicle is neither painful nor tender. Tongue rather loaded with yellow fur; pulse regular. Four years before he had a primary sore, followed by a rash, sore throat, and pains in the bones. He used no mercury for the chancre, but took a small quantity for secondary symptoms. He contracted a second sore a few months after the first.

The present symptoms are of two years' duration. He has not taken any mercury for them, as his medical attendant in London strongly cautioned him against it, as certain to be most injurious to his constitution; but he has been taking hydriodate of potash in ten-grain doses for some weeks without improvement. I recommended five grains of blue pill

to be taken at bed-time, and five grains of hydriodate of potash morning and mid-day. As the blue pill caused slight looseness of the bowels, it was changed to four grains of hydrargyrum cum cretâ, with one of aromatic confection, at bed-time, which agreed with him perfectly. The ulcers of the throat to be touched with the nitrate of silver.

This treatment had the best effect; at the end of a fortnight the left ulcer in the throat healed, and two small yellow ulcers, which were afterwards discovered on the right side, healed also. The deafness alone is not better; it is doubtless owing to the turgid mucous membrane closing the Eustachian tube.

The testicle is getting smaller and softer, and I fancied I could distinguish the body. The pain has nearly left the shoulder, and his general appearance is much more healthy. He was advised to take a second pill at night. He soon lost the sallow look, put up flesh, the throat got entirely well, the pain left the shoulder, and the testicle became smaller and softer, and the body distinguishable from the hard epididymis.

March 7th. He omitted his pills and the hydriodate for a few days, which he was ordered to resume.

May 1st. Has not felt so well those three years. The testicle nearly natural, the epididymis alone remaining hard and a little enlarged.

He was desired to take the hydriodate of potash,

with one pill at bed-time, for another fortnight, and then discontinue altogether.

June 13th. Quite well, except of the deafness. All that remains of the disease of the testicle is a slight induration of the epididymis. With respect to size there is no difference between the two testicles.

I have met a few persons with whom this plan could not be followed. In some, even five grains of blue pill salivated or griped; and one grain of the hydriodate of potash induced sore mouth and salivation, running from the nose, depression, and gastric derangement. One gentleman who had tape-worm presented both these difficulties. In such cases, I have found it best to begin with very small doses of the oxymuriate of mercury, the thirty-second or twenty-fourth of a grain in a drachm of syrup of sarsaparilla three times daily. In this way a tolerance of the remedy is established, and the dose can be gradually increased to the twelfth or even the eighth of a grain. It is a tedious mode of cure; but, under the circumstances, the only one in our power.

EXPLANATION OF THE PLATES.

PLATE 1.—A patch of cutaneous tuberculo-crustaceous eruption, taken from the abdomen of Patrick Byrne, case 4, page 25. It shows the disposition to spread in the annular form, the ulcers constituting the ring being covered either with brownish scabs or white scales, the centre red and scurfy after these have separated. In this plate a dry brown scab is seen still adherent to the centre ulcer, where the single original tubercle had been.

PLATE 2.—A section of the left testicle, affected with the tubercular syphilitic disease. It is enlarged between two and three times its natural size, and exhibits three large tubercles imbedded in the substance of the testicle ; transversely oval, of a pale yellow colour, without any appearance of vascularity, though the testicle external to them is pink, from the injection having freely entered it ; the lower tubercle, in which softening has commenced, shows a rough, shreddy surface. The upper tubercle (1) has been carefully separated from the adjacent glandular structure, and a portion of it removed, so as to exhibit the cyst. A mere section of the tubercles does not do this, as, from the elastic nature of the yellow substance, it rises and expands, so as to render the appearance of the cyst obscure. 2. The cord, enlarged and very vascular, the section showing the open mouths of

many vessels. 3. Epididymis, with several small tubercles. 4. Cavity of the tunica vaginalis. This testicle was taken from a man who died of dropsy; he had long laboured under syphilis, and had, at the time of his death, disease of the bones, besides disease of both testicles.

The Plates were lithographed by Messrs. Hanhart, of London, after drawings by Mr. Conolly, whose admirable talent for the delineation of pathological appearances is so well known in this city.



