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With R. Saundby's Compts

NOTE ON

THE

OCCURRENCE OF DROPSY

IN

GRANULAR KIDNEY.

BY

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NOTE ON THE OCCURRENCE OF DROPSY IN GRANULAR KIDNEY.

TIME has worked a revolution in our ideas since Bright, writing of granular kidney as a cause of dropsy, admitted that "the disease may exist in all its force, and may be fatal, with its sudden and insidious attacks, without the effusion of a single drop of fluid into the cellular membrane, at any period of its course; and still more frequently will fatal instances be found when the anasarca having existed, has entirely ceased." At the present time, absence of dropsy is regarded as one of the principal clinical characteristics of the granular kidney, although we use this term in a narrower sense than Bright did.

Yet it is not true that the absence of dropsy is a constant phenomenon of granular kidney—no author goes so far as this, and all admit that general anasarca is sometimes present. Bartels* attributes this to (1) coincident mitral insufficiency and fatty degeneration of the cardiac muscle, the kidneys being only moderately contracted; or (2), to extreme degeneration of the kidneys. Dr. Grainger Stewart† attributes it to the occurrence of "inflammatory irritation in the tubules superadded to the primary disease," or to the coexistence of "cardiac, pulmonary, or hepatic complications." Dr. Dickinson‡

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* Ziemssen's Cyclopædia. Vol. xiv., p. 423.
† Bright's Diseases, p. 231.
‡ Albuminuria, p. 176.

says only 19 out of 68 cases were free from dropsy throughout all the stages of the disease.

Johnson found dropsy present in 14 out of 33 cases of granular kidney, while of 26 cases of fatty kidney only two were free.

Charcot says "at an advanced epoch when the heart is weakened in consequence of the general failure of nutrition, the urinary secretion diminishes; or it may be, the kidney becomes more and more impermeable, and, under these conditions, dropsy may occur as in the large white kidney."

There can be no doubt, therefore, of the general agreement of authorities as to the occurrence of dropsy in this form of Bright's disease; but in spite of this there is a disinclination to diagnose granular kidney when extensive dropsy is present, and with the view to determine more exactly the relationship of these conditions, I have gone over the pathological registers of the General Hospital for the last ten years.

The following table includes 98 cases, in which granular kidneys were found *post mortem;* they are arranged under the diagnosis which was handed in to the pathologist, and divided accordingly as the weight of the two kidneys was above or below eight ounces.

This subdivision according to the weight of the kidneys, requires a word of explanation. It is well known that between the two extreme types, known as the large white and small red kidneys, all shades of intermediate varieties may be met with. Many of these intermediate varieties are undoubtedly both "fatty" and "fibroid," while it must be admitted that many full sized kidneys have adherent capsules, rough granular surfaces, contain cysts, and show some relative thinning of the cortical parts without any particular fatty change. Therefore, while it is permissible

to anticipate a greater approximation of the clinical characters of some of these larger kidneys to those of the large white kidney, we cannot expect that in all cases.

TABLE.

Diagnosis.	No Œdema		Œdema.		Total.
	Large.	Small.	Large.	Small.	
M. Brightii.....	4	5	9	4	22
M. Cordis	6	3	6	1	16
Apoplexy	4	7	-	-	11
Aneurism	1	-	-	-	1
Atheroma	-	-	1	-	1
Phthisis	1	-	-	-	1
Bronchitis	2	-	1	-	3
Fibroid Phthisis ...	-	1	-	-	1
Pneumonia.....	2	-	-	-	2
Pleurisy	1	-	-	-	1
Cirrhosis of Liver...	-	-	1	-	1
Ascites	-	-	1	1	2
Hernia	10	2	-	-	12
Fractures	2	10	-	-	12
Amputation	-	1	-	-	1
Ulcer	1	-	-	-	1
Gangrene	3	1	-	-	4
Erysipelas	1	3	-	-	4
Pemphigus.....	-	1	-	-	1
Burns	-	1	-	-	1
	38	35	19	6	98

At a glance it may be seen that 25 out of 98 cases were dropsical, but this dropsy varied very much. In 7 cases the lower limbs only were œdematous; in 3, the abdomen and lower limbs; in 1, the face only; 14 had general anasarca.

This proportion of 14 cases out of 98 seems very small, but if we turn to the table it appears that a very large number of the cases in which no dropsy appeared, died from some acute disease or accident, which in all probability cut short the renal disease before it reached its ultimate stages. If we exclude these conditions we reduce the number of non-dropsical cases to 22 against 14 with general anasarca, and 11 with partial dropsy.

There can be no doubt that this proportion is much below what is met with in connection with

the large white kidney, for out of 14 cases, collected over the same period, 11 had general anasarca, one ascites and œdema of the lower limbs, one œdema of the lower limbs, one only being free from dropsy.

So far then, 73 cases comprising nearly equal numbers of the large and small varieties of granular kidney, were free from œdema.

We come now to consider the second group, the 25 cases in which œdema was present. The clinical aspects are very instructive here. In the former group only nine out of 73, or about 12 per cent., were recognised during life as cases of Bright's disease; in the group we are now examining 13, or rather more than 50 per cent., were duly diagnosed as such. In three cases the diagnosis was ascites or cirrhosis of the liver, and in these cases the dropsy was confined to the abdomen and lower limbs. In two of these cases the liver was cirrhosed; in the other case there was cancer of the uterus, and chronic peritonitis. Valvular disease of the heart was present in six cases. One case was described as "fatty heart."

But it is noteworthy that of these 25 cases 19 had the larger form of granular kidney—a fact which assuredly is not without pathological significance.

It is moreover noticeable that this group contains none of the causes of death which made up so large a proportion of the former division, *e.g.*, herniotomy, fractures, &c.

I have nothing to add to what I have quoted above respecting the pathology of the dropsy of granular kidney. Cardiac, pulmonary, and hepatic complications are not uncommon, and account for some of the cases. Degeneration of the cardiac muscle is probably the most potent factor of all, as the table shews that valvular disease of the heart and various pulmonary diseases occurred without inducing any dropsy.

The conclusions I wish to be drawn are, that where the disease runs its natural course more or less dropsy occurs in the last stages of nearly half the cases, and general dropsy in nearly a third; and that it is most commonly associated with the larger form of granular kidney.

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