A FEW OBSERVATIONS
ON
ENCYSTED HYDROCELE.

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THE subject of hydrocele has been so frequently and so well treated of both by ancient and modern surgical writers, that it may appear superfluous and presumptuous in any one to attempt its further elucidation.

An observation made lately, induces me, however, to believe, that some of the collections in the scrotum are more intimately connected with the testicle or its seminiferous tubes than has been generally supposed.

Encysted hydrocele had been distinguished by many of the old writers, from the collection in the tunica vaginalis, constituting simple hydrocele, and it is noticed as being sometimes mistaken for a third testicle; individuals not unfrequently present themselves to surgeons under these circumstances, and who flatter themselves that they are thus unusually provided.

The situation of the tumours, which are caused by fluid accumulated elsewhere than in the tunica vaginalis testis, has been well indicated by Mr. Pott in his admirable treatise, and by Mr. Hunter in his surgical lectures.

Sir B. Brodie, in his lectures on diseases of the contents of the scrotum, in the Medical Gazette, vol. 13, has also thrown some additional light on the subject, and has referred to various dissections he had made. The collections forming encysted hydrocele are described as occurring,—

I. On the testicle, betwixt the albuginea and tunica vaginalis—at first as small transparent cysts, but gradually increasing in size.

II. As presenting by the side of the epididymis, betwixt that body and the reflection of the tunica vaginalis from the testis.

III. As appearing in the course of the spermatic chord above the testicle. In this latter situation, no doubt, collections of various kinds are to be met with in the loose filamentous tissue of the chord; in the unobliterated portions of the spermatic process covering that body; or, possibly, in more immediate connexion with the vas deferens itself.

Fluids of totally different nature will, therefore, be apt to be evacuated from what have been denominated encysted hydroceles of the chord, and we accordingly find serum of various shades of colour, but with all its distinguishing characters; or again, a clear and limpid fluid discharged in different cases.

When an encysted hydrocele (to preserve the old

denomination of these tumours) is of small size, it may often be distinguished by its relation to the testicle, from the common hydrocele of the tunica vaginalis testis. But when it attains, through time, a large size, the diagnosis is frequently exceedingly difficult, if not impossible.

When a surgeon of some experience in these matters, after satisfying himself that a swelling of the scrotum consists of a distended cyst, has proceeded to evacuate it, and has found, instead of serum, that a limpid and almost colourless fluid runs off, he generally sets the case down as one of encysted hydrocele, whether the tumour has occupied the scrotum, or has been seated in the course of the chord.

It has commonly been very well understood, that such limpid fluid contains little or no trace of albumen, and it has been also acknowledged, that cysts which have contained fluid of this kind do not undergo the same process when inflammation is excited in them as serous cysts do;—in other words, that a cure of such hydroceles, by injection, is not to be looked for.

One object of the present communication is to give a rational explanation of these circumstances.

I had very often met with cases of cysts furnishing limpid fluid, had punctured some repeatedly, had attempted a radical cure of others by incision, or tent, or by seton, but had contented myself with examining the fluid and testing it by heat, nitric acid, &c.

Some nine or ten months since, I was consulted

by a healthy looking gentleman, beyond the middle period of life, on account of tumour of the scrotum. There was plainly fluid on both sides. The largest cyst was punctured, and gave exit to some eight or ten ounces of thin fluid, which might be compared to distilled water, with a little soap diffused through it. The other side of the scrotum was punctured a few months afterwards, and, as far as I can recollect, ordinary looking serum, to the extent of five or six ounces, was discharged.

A short time since, the patient returned, to have the original cyst again emptied. About the same quantity of fluid was drawn off, and of the same quality as at first. This fluid was examined chemically, and scarcely a trace of albumen could be detected.

On the second day, a minute quantity was put in the field of the compound microscope, and my surprise was great indeed when it appeared quite full of spermatazoa—there were besides to be detected some of the primitive cells, in which the spermatazoa are developed, and a certain number of mucous globules.

It is to be regretted, that the microscopic examination did not take place immediately after the fluid was obtained, so as to have ascertained whether the animalcules presented their usual liveliness of motion.

The opportunities of examining cases of the kind anatomically are, it is well known, now rare, seeing that testicles are not extirpated as they used to be

for every trifling alteration of form or change of structure. I have made inquiries on the subject, and have examined carefully various preparations. In some, cysts are formed behind the testis ; others in the fore part, projecting into and covered by the reflected tunica vaginalis, and no doubt by the tunica albuginea also ; other, and in some instances numerous cysts are seen above the testicle—multilocular hydrocele of the chord. There is one specimen which, through the kindness of our President, I had the opportunity of examining, which seems to throw more light on the subject than any other which I have seen. The description of it is copied from the catalogue of preparations in the collection belonging to the Bartholomew Hospital School. There is no history attached, and no account of how it was obtained.

“ Testicle with part of the spermatic chord ; along the epididymis there is a series of membranous cells communicating together, and having for their outer boundary the tunica vaginalis, and its reflexion between the testicle and epididymis. *These cells contained a transparent and colourless fluid.* A bristle is passed beneath the vas deferens near its connexion with the epididymis.”

Here the sac is closely connected with the epididymis, *if not an actual dilatation of its lesser head.**

* There is also a preparation in the collection of Mr. Bransby Cooper, in which a cyst is seen connected with the upper part of the epididymis, pushing the tunica albuginea of the testis before it, and projecting into the cavity of the tunica vaginalis. Mr.

This subject deserves further investigation, to discover, first, if the limpid fluid drawn from cysts of the scrotum and inguinal region, uniformly or often contains spermatazoa.

Secondly, what connexion subsists betwixt the seminiferous tubes and their cysts.

Thirdly, whether or not dilatation of parts of the epididymis or vas deferens, obstruction or otherwise, may not, in some instances, give rise to these collections.

If so, this being a pouch lined by mucous membrane, we should have an easy solution of the difficulty regarding a radical cure, not following injection as in the serous cyst. The microscopic examination of the lining membrane of a recent cyst would easily settle the nature of the secretory surface.

P.S.—The preceding observation has been confirmed by examination of the fluid from a small cyst above the testicle of a man æt. 53.

He applied to be treated for bad stricture of the urethra, which had frequently given rise to retention of urine.

The fluid of the hydrocele, in this case, was

Cooper punctured this cyst, and drew off three or four ounces of limpid fluid, which contained scarcely a trace of albumen. The patient died of pneumonia a few months after the operation, and the preparation being obtained, showed the sac somewhat contracted, though gradually refilling.

nearly transparent and colourless. It was found, on examination, to contain numerous spermatazoa, some of which continued to move actively for some considerable time after the fluid was drawn from the cyst.

This was made manifest to some practitioners who were present, and to many of the pupils of the hospital.