A pair of chronic inflamed uterine appendages : illustrating the development of tubo-ovarian cysts / by Alban Doran.

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35. *A pair of chronic inflamed uterine appendages, illustrating the development of tubo-ovarian cysts.*

By Alban Doran.

This pair of uterine appendages explains how a tubo-ovarian cyst may be formed as a result of chronic disease of the Fallopian tube and ovary. They were removed in February, 1887, by Dr. Bantock, from a woman, aged 23, who had been subject for several years to constant pain in the pelvic region, and other severe local symptoms.

The right appendages form a single cystic body with very thin walls (Woodcut, R.). The outer part of the tube can only be distinguished from the ovary by the presence of a slight fold, which was strongly marked when the specimen was fresh. The uterine end of the tube remains quite distinct. I assisted at the operation, and noted that this cyst formed the whole of the appendages on the right side of the uterus.

The opposite appendages (Woodcut, L) show an early form of the same condition. The tube is held firmly to the ovary by adhesions. It is obstructed and its fimbriæ have disappeared, the extremity being already dilated. The ovary has undergone cystic dilatation at the part furthest from the tube. It is highly probable that if the appendages had not been removed, the cyst would have involved the entire ovary, and its cavity would possibly have coalesced with the interior of the dilated tube.

No. 4475,[1] which I exhibit this evening, displays a yet earlier stage. The tube is dilated, but there is no cyst in the ovary. On the other hand, in No. 4478, the process of conversion of a diseased tube and ovary into a tubo-ovarian cyst has advanced a stage further than in the left appendages of the pair which are the subject of this memoir. In the uppermost appendages in 4478 the dilated tube and ovary are becoming fused. In the lower appendages, using the term "lower" in reference to the manner in which they are mounted, the fusion is less advanced.

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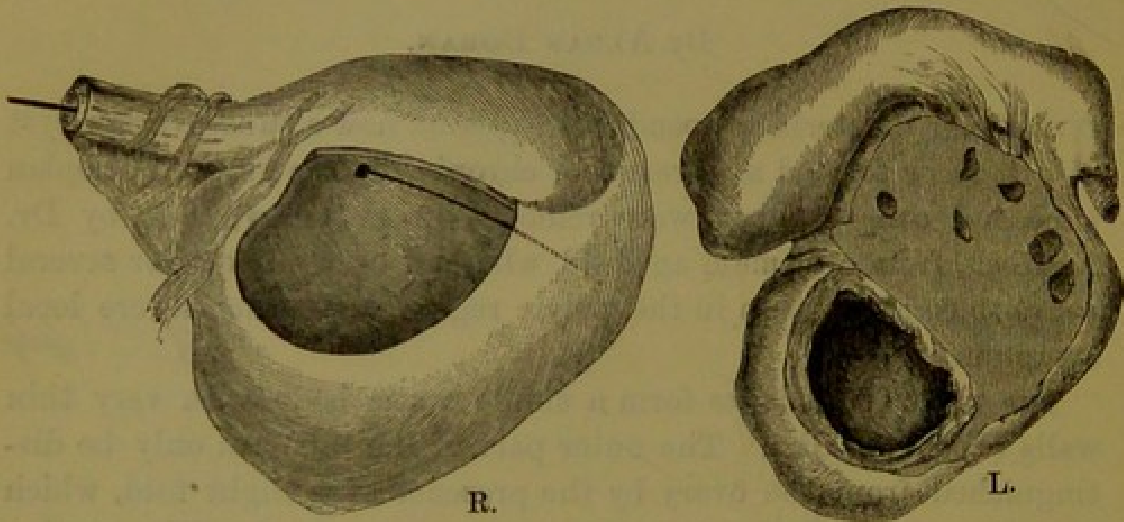
[1] These numbers refer to specimens in the Museum of the Royal College of Surgeons, Pathological Series.

I will now turn to some specimens where the tubo-ovarian cyst is yet more developed than on the right side, in the case of the first pair exhibited this evening. In 4574 both Fallopian tubes are greatly dilated, especially the right, which has become fused to a cyst of the corresponding ovary, or rather to the ovary converted into a single cyst. The cavities of the tube and cyst communicate by a large opening, though not so freely as in my own specimen. The flocculent adhesions on the surface of the uterus, and other appearances, all indicate that chronic pelvic peritonitis, in the more local form commonly called "perimetritis," and "disease of the uterine appendages," had existed for long before death. The cyst of the right ovary has none of the characters of the common ovarian cystic tumour; it is evidently a simple cystic degeneration of a chronic inflamed ovary.

WOODCUT.



R. Right ovary and Fallopian tube converted into a single cyst. The outline of the external part of the tube is faintly indicated. A portion of the cyst wall has been excised to show that the bristle passed through the tube enters the common cavity of the cyst. Flocculent bands cover a portion of the cyst and tube.

L. Left ovary and Fallopian tube. The tube is obstructed, dilated, and bound to the ovary by flocculent adhesions. The cut surface of the ovary exposes a cyst cavity which lies at some distance from the line of adhesion to the tube.

No. 4573 is almost a *fac simile*,[1] on a large scale, of the right

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[1] Though described in the catalogue as "a Fallopian tube, dried," I have not the slightest doubt that it includes the ovary as well, as in my specimen.

1, Harewood Place,
Hanover Square.
W.

Mar: 19. 1867.

My dear Doran

I am sorry that I cannot give you any history of N°. 4573. It was, almost certainly, found in some one in whom there was no suspicion of it during life.

Sincerely yours

James Paget.

appendages in my own specimen. Unfortunately there is no history attached to it.

Here I must note that in every specimen above described excepting the last, there was a history of inflammatory disease of the appendages, in the common acceptation of the term, and even in No. 4573 there is little reason to doubt that the condition was brought about by the same affection, and not by the development of a non-inflammatory disease, the common ovarian cyst.

In 4574 *a* we see a large cyst with an obstructed and slightly dilated tube adherent to its upper surface, but not in communication with the cyst cavity. A portion of the ovary is seen below, and it communicates with the cavity of the cyst. The opposite ovary formed a large multilocular cystic tumour. I believe that the cyst, in this specimen, either originated in the hilum of the ovary or in the broad ligament.

I show this specimen because it is the only example in my own experience where in true cystic disease of the ovary or broad ligament there has been any approach to the formation of a tubo-ovarian cyst; and I have had the opportunity of examining a very large series of ovarian cysts. On the other hand, after careful inspection of half a dozen pairs of appendages affected with chronic inflammation, I find, in several cases, more than a distinct approach to the development of a tubo-ovarian cyst. Hence my experience leads me to believe that tubo-ovarian cysts are a result, essentially, of inflammatory changes in the tube and ovary, leading to cystic dilatation of both and fusion of the cystic cavities. When a tubo-ovarian cyst forms in the course of ovarian cystoma, I suspect that it is developed by pure coincidence, the tube happening to become inflamed, obstructed and dilated, and ultimately fusing into one cavity with the ovarian cyst. This condition must be rare, for in ovariotomy the tube is generally found to be healthy, with its fimbriæ remarkably distinct and its ostium patulous.

Foreign writers lay great stress on the changes which the fimbriæ undergo after obstruction. I believe that they simply become matted together, forming at first a kind of bud, as in this specimen (No. 4567), but becoming rapidly effaced altogether. All trace of them is certainly lost at a very early stage of dropsy of the tube, whilst they remain conspicuous after years of stretching, or of other non-inflammatory but [illegible] conditions. When these delicate structures become infiltrated [illegible] andtory products and covered with exudation, their nutrition must soon be interfered with, and they atrophy as they coalesce. The distension of the obstructed tube will aid in completing their atrophy.

The tubo-ovarian cyst itself is evidently formed by the same process of degeneration due to inflammatory changes in the tube, ovary, and pelvic peritoneum. The tube and ovary becoming matted together by adhesions, their vascular supply must soon be obstructed. At the same time, degenerative changes progress within the parenchyma of the ovary, which becomes cystic. The precise nature of this cystic change is not very clear; it appears to me to be simple dilatation of more or less ripe follicles. It is certainly different from the cystic changes which produce the common ovarian tumour, where evidence of inflammatory changes in the tube and broad ligament is almost invariably absent.[1] At length, in intractable cases, the cyst in the ovary becomes approximated to the dilated tube, and the septum between them yielding, as such septa do yield in all kinds of cystic formations, a tubo-ovarian cyst is formed.

The patient from whom these appendages were removed had menstruated regularly until the date of the operation, although both tubes must have been obstructed for a prolonged period. The appendages were strongly adherent to surrounding structures, especially to the omentum. *April 5th,* 1887.

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[1] Even when these structures appear morbid, in the course of an ovariotomy, the appearance is generally due to œdema, of the kind still more frequent and more marked when myoma of the uterus exists. Directly the parts are cut away, the serum drains from the broad ligament, and that fold as well as the tube assumes a normal appearance. This never occurs when inflamed appendages are removed.

Se "Schramm u. Neelsen" Zur Kenntniss der Tubo-ovarialcysten". Arch. f. Gynäk vol XXXIX
1891.