A CASE OF PRIMARY FIBRO-SARCOMA OF THE OVARY.

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THE following case I thought might be of interest, as the frequency of sarcoma of the ovary is small in comparison with other tumours, and cases do not often appear recorded in the literature. Revano (1) in a study of 699 tumours of the ovary recorded sarcoma as occurring in 4 per cent., and affecting both ovaries in half the cases. He says that ovarian tumours in childhood up to fifteen years of age are almost always sarcoma, or sarcomatous degeneration of a cyst. Bushwell and Karrawalla (2) reported a series of 16 ovarian neoplasms, mainly malignant, amongst which were one of round-celled sarcoma and one of fibro-myoma undergoing sarcomatous change.

Mrs. Scharlieb (3), in March, 1910, in a paper on the proportion of malignant to innocent ovarian growths, recorded 150 cases, 25 of which were malignant, 4 being sarcoma, 1 secondary to sarcoma of the uterus. She states that it is impossible to tell the nature of a tumour by the naked eye. Macnaughton-Jones (4) found one sarcoma in 100 cases, and in the records of 2,893 cases from German clinics found 309 indisputably malignant, 22 being sarcoma. This gives a percentage of only .75, which is much less than other authorities, but is fairly close to Macnaughton-Jones's own experience. Glendining (5), among 106 ovarian tumours, found 3.8 per

cent. sarcoma of primary origin in the ovary. Wer-muth (6), analysing the cases in the German literature, gives the percentage of sarcoma as about 5 per cent. of all ovarian tumours, and relatively more frequent in children, 5 per cent. of Pfannenstiel's cases being under ten years of age. The same operator found the greatest frequency between the ages of twenty-one and thirty years.

Ovarian sarcomata are usually solid, and all varieties may be found—spindle, round, and mixed celled. They are usually primary and frequently bilateral. Metastases are frequent in the uterus, tubes, and other organs, and multiple adhesions are a common complication.

Hartz (7) reports a case which he claims to be only the third recorded of fibro-myoma of the ovary undergoing sarcomatous degeneration. He says that most of the cases of fibro-sarcomata of the ovary reported are of the spindle-celled type, and began as primary sarcomata, the chief feature being a relative increase of fibrous tissue formation. Briggs and Walker (8) reported 438 ovarian tumours, 49 of which were solid, and of these, 1 was found to be sarcoma and 1 a teratoma including sarcoma. Briggs claims that the highly cellular connective tissue tumours of the ovary are not necessarily sarcomata, and that the ovarian fibro-myomata commonly consist of spindle and round cells amidst a fully-formed fibrous interlacement in varying proportions; but the overwhelming evidence of innocence amongst these tumours displaces the idea of sarcomata.

During the past fifteen years in the Rotunda Hospital "Reports" (9) 343 tumours of the ovary are recorded, and of these six were sarcoma. Three of six patients died in hospital, two left hospital as inoperable, and one left well after operation. Rachel (10), speaking of malignant

ovarian tumours in general, states that only 20 per cent. of those operated upon were alive two years after operation, and a considerable number of these had already inoperable recurrence. He considers that all ovarian tumours should be operated upon as soon as possible.

The history of the present case is as follows :—

CASE.—Mrs. L., aged forty-four, was delivered of a child five years ago, and had considerable trouble at her confinement, the labour being prolonged, and terminated with forceps. She was sent into hospital shortly afterwards for the repair of a complete laceration of the perinæum. When leaving hospital the tear in the sphincter ani was repaired, but the rest of the perinæum had not united, and she was told that she should have a second operation, but refused. I have been able to get the notes of the case at this time, and there is no mention of any tumour in the pelvis. There is a note—“to be operated on again,” but the patient thinks that there was some suggestion made to her at the time of a tumour being present, and thinks that the abdomen had been large since her confinement. During the last two years she had noticed the increasing size of her abdomen, and for the past twelve months had suffered from gastric irritability, palpitation, and breathlessness, on the least exertion. When I first saw her she was a stout, healthy-looking woman, but became breathless very easily. On examination of the abdomen a tumour was found extending from the pelvis to two inches above the umbilicus, and filling the lower abdomen, particularly on the left side. By vaginal examination the tumour was found to be quite out of the pelvis. The cervix was high up, and the fundus small and in front of the tumour. The diagnosis of fibroid probably of the left ovary was made.

Operation.—The abdomen was opened in the middle line, a large solid tumour presented, which was found to be springing from the left broad ligament. There was one dense adhesion between the tumour and the posterior abdominal wall in which the right tube and ovary were involved. The tumour was removed without any difficulty, and owing to

the manner in which the right tube and ovary were involved it was thought best to remove them also. When the tumour was removed it was considered a simple fibroid. The abdomen was closed in the ordinary layer method, and the patient went home perfectly well on the twenty-second day.

The tumour weighed about 10 lbs. when fresh, and was solid except for a small cyst about the size of a foetal skull. One portion of the tumour was considerably softer in consistence. The first portion of the tumour which was cut for examination showed a more or less regular field of round cells, which suggested a fibroid cut in cross section to the fibres, but the character of the section was not considered satisfactory by Professor O'Sullivan, and two other portions were cut. These both showed a very irregular formation, both in the density and distribution of the cells. In some fields the cells were closely packed, in others they were loose; the cells everywhere showed irregularity in size and shape, and many of the blood-vessels were poorly formed, with thin walls, and many of them having the cells closely grouped around them.

The appearance of the sections is extremely like that described by Gebhart in his "Pathology." He says that the diagnosis is to be made from the different grouping of the cells, in some places massed, in others thin—this often being particularly notified around the vessels. Irregularity in the size of the cells is always seen, and some large cells irregular in shape and nuclei and staining properties. He says spindle-celled sarcoma is the only variety found pure.

This case I thought of interest not only from its pathology, but even more so from the clinical aspect, and from that of treatment. There is no doubt that the tumour existed for at least three years, and it is highly probable that it existed for more than five. It evidently took on more rapid growth during the last two years. At the time of operation there was nothing to raise the suspicion that the tumour was of a malignant character, either in the appearance of the patient or that of the

tumour. I think the case illustrates the advisability of removing the other ovary in cases where solid tumours of the ovary are found, although the second ovary may not show any disease, particularly in women near the menopause. Any ill-effects due to this would surely be compensated for by the greater safety against recurrence. I have only met one case recorded (by Wiggin (11)) of bilateral sarcomatous disease, but this should not alter the general principle in dealing with solid ovarian tumours. Goodall (12), in a recent article on the epithelial origin of new growths in the ovary, shows how foetal defects when existing in one ovary almost invariably exist in the other, and although this deals with the carcinomata and their origin, nevertheless the same may largely apply to the fibrous supporting tissue from which the sarcomata have their origin. There is also the parenchymatous cell of the ovary, which has been shown to be of epithelial origin, but which gives rise to the endotheliomata, which occupy an intermediate place between the carcinomata and the sarcomata, and which often show transitions in the one tumour to the two extremes, and aberrant types of the cells are very likely to exist in the two ovaries. It is possible that the parenchymatous cell is the chief origin of the sarcomata, while the fibrous supporting tissue chiefly gives rise to the fibromata.

The difficulty or impossibility of making any naked-eye diagnosis of a tumour should justify the treatment of all solid tumours of the ovary as malignant at the time of operation. It is of interest that a tumour of this nature should grow to such a size as the one shown and not have long ago given rise to metastases. Of course they may exist and show later, but I hope that the healthy condition of the patient is proof that the disease had not ex-

tended before being removed. It is now over four months since the operation, and the patient reports herself as in perfect health.

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DR. JELLETT referred to a case of sarcoma of the ovary on which he had seen Sir William Smyly operate some years ago, which was of interest on account of the after history. The tumour was an entirely capsulated growth. The patient was a girl aged nineteen or twenty, and she went on very well for a short period, but then began to get worse. She got a high temperature, which eventually rose to 106° or 107°. She then lost control of the lumbar centres, and a tumour appeared under the skin over the lumbar spine. She died, and it was found that secondary growths had developed behind the glands of the peritoneum and had cut through the spinal column. He agreed with Dr. FitzGibbon as to the removal of both ovaries in cases of malignant tumour affecting one, and also in treating all solid tumours of the ovaries as malignant at the time of operation.

DR. NEILL referred to a case in which Dr. Kidd, while Master of the Coombe Hospital, removed two sarcomatous

ovaries. There was great difficulty in arresting the hæmorrhage, as the tissues were very degenerate. There was great extension of the disease to the peritoneum. The case was reported in the "Transactions of the Royal Academy of Medicine in Ireland," Vol. XVIII., 1900, page 297.

DR. ALFRED SMITH said his experience was that ascites was generally associated with malignant tumours. He had come to the conclusion owing to the bad subsequent history of these cases that the mere removal of the ovary was bad surgery. He was firmly convinced that whenever one or two solid ovarian tumours were found the uterus should also be removed, as there was absolutely no use in leaving it behind.

DR. PUREFOY said the case appealed to him with regard to three points:—(1) He had noticed that in the early stage of their growth these tumours are associated with good health. (2) The difficulty of distinguishing between solid ovarian tumours and fibroid with long pedicle. He recollected a case in which operation was postponed for some months because a tumour with a long pedicle was regarded as fibroid, and when it was removed it proved to be a malignant tumour of the ovary. Recurrence of the disease occurred a few months later. (3) The invariable recurrence which follows in the case of such tumours. This being his opinion, he could not adopt the view of Professor Smith—that when the tumour is suspected of being malignant the uterus should be removed, as it exposed the patient to increased risk without any compensating advantage. He considered, however, that recurrence might be delayed if the second ovary was removed. In these tumours much difficulty has been experienced in arriving at a just estimate of their exact histology.

DR. ROWLETTE agreed with Dr. Purefoy that it was generally difficult to ascertain whether solid tumours of the ovary were sarcomatous or carcinomatous. It might require a very exhaustive examination of the tumour to arrive at a diagnosis. A point which he considered of help in judging during operation whether a tumour was malignant or not was that malignant tumours, when incised, presented as a rule a peculiar translucent and homogeneous appearance,

innocent tumours being more opaque. He pointed out this characteristic in the specimen shown.

DR. FITZGIBBON, in replying, said he was glad the Section seemed to be generally agreed as to the removal of the second ovary. With regard to going further and removing the uterus, he agreed with Dr. Purefoy when he said he did not consider it of much use. The involvement of the uterus in a case could only be as the result of metastasis, while the reason for removing the second ovary was on account of its histological relationship.