

ASCITIS AND HYDROTHORAX IN GYNAECOLOGY

by

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Ascitis is common in gynaecological diseases but combination of ascitis and hydrothorax is not common. In a woman having ascitis, one must rule out the diseases of any pelvic organ which are commoner than other diseases such as portal hypertension, nephritis etc. Ascitis may be confused with ovarian cyst. In ovarian cyst, the fluid is loculated, whereas in ascitis it is free in peritoneal cavity. Shifting dullness is of great help. Ovarian cyst may be confused with pregnant uterus but differentiation is not difficult.

Ascitis is one of the important manifestation of malignancy of pelvic organ such as ovary, tubes and advanced cancer of uterus. Some benign tumour of ovary and uterus may cause ascitis, mechanism of which is difficult to understand and will be discussed here. Haemoperitoneum, which is not ascitis, is the result of ruptured ectopic pregnancy which is a common gynaecological emergency in Sokoto, Nigeria. Pelvic tuberculosis may cause usually loculated ascitis, but rarely free fluid in peritoneal cavity.

Causes of combination of ascitis and hydrothorax in gynaecological practice can be classified as follows:

(1) Demon-Meigs's syndrome—In 1937, Meigs and Cass reported 7 cases of fibroma of ovary associated with ascitis and hydrothorax. He pointed out that he had only emphasized what had been previously described by Demon of France and

Lawson Tait of England. Fibroma is often associated with yellowish thecal tissue and is called fibrothecoma. Other types of ovarian tumour such as thecoma, granulosa cell tumour and Brenner tumour may be associated with ascitis and hydrothorax. But fibroma or fibrothecoma far outnumber the other types of tumour. So this syndrome has been defined as limited to:

(a) fibroma, fibrothecoma, granulosa cell tumour, Brenner tumour of ovary; (b) Ascitis; (c) hydrothorax on right side or both the sides; (d) Cure after removal of the tumour.

The important contribution made by Meigs was to show that combination of pelvic mass, ascitis and hydrothorax may be due to benign cause that is curable. Hence these findings do not invariably add to cancer with poor progress.

Modus operandi of abdominal and chest fluid is not clear. Many hypothesis have been postulated. One of them is that fluid is actively secreted by the tumour. In support of this theory some functioning tumours of the ovary are associated with ascitis. Mechanical irritation from solid heavy tumour results in exudation of fluid from peritoneum. In support of this theory any mobile heavy tumour of ovary or uterus can produce ascitis such as subserous fibroma of uterus. The fluid may come from changes in capsular veins of the tumour. The point against this hypothesis is that there is no evidence of pressure on the veins since they float freely in ascitis fluid and torsion is rare in these

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types of tumour.

Ascitis may be due to anastomotic peculiarity in the ovary that is not found in other organ. The lymphatic drainage of ovary is intrinsically deficient. The ovarian pedicle tends to be narrow. The functional load on the pedicle is proportional to the mass of the living cells dependant on it, when the lymph formation exceeds the capacity of the channels in the pedicle, fluid starts leaking into peritoneal cavity. The point against this theory is that the ascitis fluid is clear.

After the benign tumour of ovary, the second important cause of ascitis and hydrothorax is malignancy of ovary. Malignant ovarian tumour is notorious for ascitis and possibly hydrothorax with or even without involvement of pleura. Any advanced pelvic malignancy may give rise to ascitis.

Fibromyoma of uterus, specially big subperitoneal type may be associated with ascitis and hydrothorax. But this is not very common.

Ascitis and hydrothorax may take place due to hyperstimulation of ovary due to overdosage of ovulatory drugs such as clomid, H.P.G., H.C.G. etc. which also cause massive enlargement of ovary. This is known as hyperstimulation syndrome of ovary.

CASE REPORT

Mrs. M. a Moslem married women aged 25 years was admitted into the General Hospital, Sokoto, Nigeria on 22nd September, 1981 for progressive swelling in abdomen for last seven months which gradually increased since then. She had loss of weight and fever every day for last 3 months. She had difficulty in breathing for last 1 month and swelling of both the legs for last few weeks.

Married for 13 years, Menstrual—Cycles 5/26—30 regular LMP—10 days back.

Past history of medical and surgical illness was not significant. Heart — N.A.D. Lungs —

Diminished breath sounds in both the lungs, but more on the right side. Percussion note — dull on both the sides.

On abdominal examination fluid thrill and shifting dullness were positive. A hard mass was felt in lower abdomen arising from the pelvis reaching to the level of umbilicus. It had definite margins and was mobile and dull on percussion. There was no tenderness.

On vaginal examination a hard mass was felt through fornices. No nodular mass in pouch of Douglas

Investigation:

X-ray of Abdomen—Nothing significant. Chest — Bilateral hydrothorax, massive on right side. Hb%—15 Gram%. Analysis of pleural and ascitis fluid—Straw colour, protein—2.5G%. A few red blood cells in pleural fluid.

She was treated for improvement of her general condition but without any success. Pyrexia and loss of weight could not be controlled. She was more dyspnoeic. On 6th November, 1981, aspiration of 1500cc from right and 700cc from left pleural cavity was made and she was a bit comfortable. Taking a calculated risk, operation was decided.

Laparotomy was done under general anaesthesia. A right sided ovarian tumour (solid) of size of 18 weeks pregnant uterus was found. There was very little adhesion. The pedicle was broad. The tumour was removed along with the fallopian tube. The left ovary was normal. No evidence of malignancy was observed. Abdomen was closed after removal of ascitic fluid.

Post operative period was un-complicated and she made an uneventful recovery. There was remarkable improvement of her general condition. Her temperature was normal. X-ray of the chest on 10th day of operation showed much diminution of fluid from both the sides of chest. She gained 5 pounds. Another X-ray was taken on 17th day of operation and it was found that both the lungs are clear. She left the hospital on 1st December, 1981.

Histopathological report of the tumour. Gross — The specimen consists of a tumour mass measuring 8" x 5" x 3½" lobulated rounded contour with smooth surface. There are solid and cystic areas. The solid areas are whitish and yellowish with whorl arrangement. There are numerous microcysts in solid areas.

The cystic spaces are uniloculated with thin wall and smooth lining. The cysts contains small amount of watery fluid. No areas of haemorrhage or necrosis are seen.

Microscopic — The tumour is composed of fibromatous tissue arranged in interlacing bundles and whorled pattern. There is no evidence of malignancy. At places sheets of thecal cells are also seen.

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See Figs. on Art Paper IV