STRUMA OVARII WITH ASCITES AND HYDROTHORAX

by

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Ovarian struma is a rare neoplasm of teratomatous nature and much rarer is its combination with collection of fluid in the peritoneal and pleural cavities. So far including the present one, 18 cases of struma ovarii with clinical features of Meigs's syndrome are reported (Fox and Langley, 1976) and none of the 9 patients with struma ovarii reported from India by Oumchingui *et al* (1975), Pande and Rajavanshi (1975) and Philips and Kaur (1965) had features of the syndrome.

The incidence of struma ovarii in a period of 18 years from 1959 to 1977 in Kurnool General Hospital is 1.13 per cent in a series of 266 ovarian tumours. The incidence reported by Haiguchi and Cato is 0.3 per cent in a series of 1000 solid ovarian tumours as quoted by Kawahara (1963).

CASE REPORT

Mrs. L. 50 years old was admitted on 6-11-'76 with distention of the abdomen and breathlessness for 3 years. She did not have anorexia, jaundice, fever or cough in the past. She is a mother of 12 children with only four being alive now. She attained menopause 6 years back and widowed 4 years back. Patient was found to be illnourished and anaemic.

Examination of cardio-vascular system revealed an irregular and missed heart beats with no abnormal sounds. On investigation, she was found to be suffering from multiple ventricular extrasystoles and was treated for the same. Examination of the lungs showed pleural effusion in the right infraaxillary and infrascapular areas.

There was a solid tumour in the abdomen 6 inches in diameter which was ballotable in the ascitic fluid and it was found to be freely movable in all directions. Liver and spleen were not palpable. On pelvic examination, uterus was found to be atrophic, retroverted and pushed to the left side by a solid nodular swelling of 6 inches in diameter felt through the right lateral and anterior fornices.

A provisional diagnosis of Meigs's syndrome was made.

The following Investigations were done: Hb-9.2 Gm, E.S.R. 15 mm/hr. Total white cell count 6,800/cm, D.C.-P_{67}, E_4. Urine—NAD. X-Ray of the chest showed pleural effusion on the right side. E.C.G. showed multiple ventricular systoles. Parascentesis abdomini was done. The fluid was yellow and clear with a protein content of 5.16 G per cent, and was free from malignant cells. Thoracocentesis was done and the fluid aspirated too was clear yellow with a protein content of 5.11 G per cent without any malignant cells.

Laparotomy was done on 25-11-'76 under general anaesthesia and 4.5 litres of clear yellow fluid was aspirated. There was a globular well capsulated tumour with raised nodular surface, about 6 inches in diameter, which was found to be arising from the right ovary. Left ovary,

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tubes and uterus were atrophic. As the patient was a poor risk individual, right ovariotomy and left salpingo-oophorectomy was done.

Specimen: Tumour was 15 cm. in diameter, weighed 1 pound and it was capsulated. Cut section of it showed multiple cystic spaces being filled with viscid yellowish fluid and the tissue appeared edematous. Yellowish fluid could be squeezed from the tissue.

Pathology Report: Thyroid tissue with varying sizes of follicle was seen amidst dense fibrous tissue. Some follicles contained colloid, whereas others appeared as solid cords and trabeculae. There were areas of functioning thyroid tissue showing papillation and scalloping of the colloid with cylindrical type of epithelium.

Postoperative period was uneventful, but she continued to have the missed heart beats at the time of discharge from the Hospital.

Patient reported for check up after 2 months. She had no complaints. There was no ascitis and scar was healthy. X-Ray of the chest showed no pleural effusion and her E.C.G. was normal.

Discussion

Most women with struma ovarii present between ages of 35 and 50 years. A high proportion of women with the tumour are asymptomatic. Those with symptoms tend to fall into one or the other of the 3 broad groups between which however there is a considerable overlap (Fox and Langley, 1976).

1. A majority complain of symptoms of non-specific pelvic tumours such as pain, backache and urinary disturbances.

2. About 10 per cent develop ascitis which is often marked and dominates the clinical picture. In some cases, patients were subjected to repeated paracentesis over a period of several years before the true diagnosis had become apparent. A proportion of them develop hydrothorax too.

3. Five (Oumachingui *et al*, 1975) to twelve (Kawahara, 1963) per cent of patients with struma present with the clinical evidences of hyperthyroidism.

The original definition of Meigs syndrome in which ovarian fibroma was described with ascitis and hydrothorax was later redefined by Meigs (1954) to include cases showing (1) a fibroma like tumour of the ovary (fibroma, thecoma, granulosa cell tumour and brenner tumour) (2) Ascitis (3) Hydrothorax and (4) Cure following removal of the tumour. As some of the thecoma and granulosa tumours are malignant, their inclusion in the syndrome seemed illogical according to Kimbrough and an alternative was suggested by him as either ovarian fibroma alone or any ovarian tumour without metastasis with ascitis and hydrothorax are to be named as Meigs syndrome.

There are many theories and speculations about the fluid that accumulates in the peritoneal and pleural cavities. Lemon and Higgins (1931) have demonstrated experimentally the pathway by which the lymphatic absorbtion of particulate matter proceeds through the diaphragm. (Meigs *et al*, 1943).

The more recent etiological basis for the ascitic fluid is that offered by Dockerty and Masson (1944) who believed the significant factor in the production of the ascitis is oedema in the tumour itself or in its pedicle. In the case described here also it was noticed that the tumour was very oedematous and a lot of fluid of the same colour as that of ascitic fluid could be squeezed out of the cut section.

Summary

Struma ovarii with typical features of Meigs syndrome is described. This combination is extremely rare and is not reported so far in India.

References

1. Asha Oumachingui, A., Sankaran, V. and Naik, P. N.: Obst. & Gynec. India. 25: 554, 1975.
2. Dockerty, M. B. and Masson, J. G.: Am. J. Obst. & Gynec. 47: 41, 1944.
3. Fox, H. and Langley, F. A.: Tumours of the Ovary ed 1; London 1976; William Heinmeun Medical Books Ltd. P. 239.
4. Kawahara, H.: Am. J. Obst. & Gynec. 85: 85. 1963.
5. Lemon, N. S. and Higgins, G. M.: Am. J. M.Sc. 181: 697, 1931.
6. Meigs, J. V. and Cass, J. W. A.: Am. J. Obst. & Gynec. 33: 249. 1937.
7. Meigs, J. V.: Am. J. Obst. & Gynec. 67: 962, 1954.
8. Meigs, J. V., Armstrong, S. H. and Hamilton, H. H.: Am. J. Obst. & Gynec. 47: 19, 1943.
9. Pande, S. R. and Rajavanshi, V. S.: Obst. & Gynec. India. 23: 95, 1973.
10. Philips, C. and Caur, G.: Obst. & Gynec. India. 15: 329. 1965.

See Figs. on Art Paper VI