DERMOID CYST IN SUPERNUMERARY OVARY AT THE ILIO-CAECAL REGION

(Report of a Case)

by

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There have been only seven documented cases of supernumerary ovary so far reported. Wharton reviewing the literature in 1959 found two cases and reported two of his own. Bernett in 1961 and Pearl *et al* in 1963 reported one case each of supernumerary ovary. Hogan *et al* in 1967 reported one case of dermoid cyst arising in supernumerary ovary of great omentum.

The case reported here is of a dermoid cyst arising in a supernumerary ovary at the ilio-caecal region undergoing malignant changes.

CASE REPORT

The patient, aged 30 years, para 7, was seen on 6-2-70 with a history of hypogastric swelling for the last six years and two months' amenorrhoea, along with severe pain in abdomen and fever for 15 days prior to examination. Pain in abdomen had aggravated since the morning of the day of examination. It was accompanied by nausea, vomiting and difficulty in micturition.

History of present illness:

The patient had noticed this abdominal lump for the last 6 years, which had gradually increased to about 26 weeks of gestation size. She had experienced no trouble by the presence of this lump till 15 days ago when she experienced acute pain in abdomen with nausea and vomiting. Intermittent abdominal pain with acute exacerbations now and then were complained by the patient for many months to which no importance was attached.

Menstrual History

Menstrual cycles were regular. She had bleeding for 3-5 days every 28 days. Her last menstrual period was on 18th December, 1969.

Obstetrical History

She had 7 full-term pregnancies including one multiple pregnancy. Of these two were stillbirths and two perinatal deaths for which no cause was ascertained. Last child was stillborn 11 months ago.

On examination

Patient looked extremely ill and toxic. Her pulse was 140/minute regular, temperature 101°F, B. P. was 90/60 mm of Hg. Tongue was coated and dry, respiration was hurried.

Cardiovascular and respiratory systems revealed no abnormality.

Abdominal examination

A tender midline supra-pubic lump extending from pubic symphysis to umbilicus was felt which was tense and cystic with nodules at places. The mobility was restricted. There was no evidence of free fluid.

Vaginal examination

Vaginal mucous membrane was healthy. Cervix was displaced high up and posteriorly by the lower pole of the tumour. Uterus was of normal size and felt separate from the lump.

Laboratory Tests: haemoglobin level was 9.57 gm% W. B. C. 12000/cu. m.m.,

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Sedimentation rate was 93 m.m./hour (average of 2 hours).

Urine analysis was normal except for a faint trace of albumin.

Stool examination—Normal.

Skiagram of the chest—Normal.

Plain X-ray of abdomen: revealed a round dense opacity with few radio-opaque areas resembling teeth in the pelvis.

The diagnosis of a dermoid ovarian tumour undergoing torsion was made. Laparotomy was performed on 20-2-1970 under cover of antibiotics.

On opening the abdomen adhesions were found all round the tumour with parietal peritoneum, omentum and loops of small intestines. On separating the adhesions a thick walled tumour of about 8″ diameter was delivered from the abdomen. The posterior aspect of the tumour was found to be attached to the posterior parietal peritoneum at the ilio-caecal region, which was carefully removed. There was no involvement of either the ileum, caecum or the appendix. After the removal of the tumour the uterus could be easily delivered from the pouch of Douglas and to our great surprise we found that both the ovaries and the fallopian tubes were absolutely normal and healthy.

Loops of small intestines were lacerated at 2 or 3 places while separating them from the tumour which were repaired.

The area in the ilio-caecal region from where the dermoid cyst was removed was hard and fixed to the retroperitoneal structures. There were no detectable connections of this tumour to the normally situated right-sided ovary.

Other abdominal viscera were palpated and were found to be normal.

Post-operative period was smooth and she made an uneventful recovery.

Macroscopic examination of the tumour:

The tumour was 8″ x 6″ in size, a thick walled single cyst containing 3 teeth, a bunch of hair and small bony pieces. The cyst was filled with thick purulent sebaceous material.

Microscopical examination:

Sections reveal loose connective tissue matrix with considerable necrosis, infiltration of round cells and evidence of attempt at acini formation at places. Besides, there are irregular collection of bizarre looking spheriodal type of cells in what appears to be vascular spaces (Microphoto No. 2). The stroma at the periphery and at some other areas as well, simulates that of an ovary (Microphoto No. 1).

The ovarall picture is strongly suggestive of a teratoma.

Follow up:

She was discharged in fair general condition on 23rd March 1970, five weeks after admission. At the time of discharge there was no evidence of any metastasis. Patient failed to report after one month as advised but was re-admitted on 25-7-1970 with multiple hard nodules in abdominal cavity. She succumbed to malignancy on 10th day of admission.

Post-mortem was not allowed.

Discussion:

The occurrence of supernumerary ovary is very rare and only few and far between cases have been reported in the literature. Grohe in 1864 was the first to report a case of supernumerary or accessory ovary.

Supernumerary ovary was defined by Wharton in 1959 as a third ovary arising from a separate primordium and is situated entirely separate from the normally placed ovaries. This has no connection with the normal ovary. Accessory ovary on the other hand represents a duplication or division of ovarian tissue. It is situated near the normal ovary and usually has some fibrous connections with the parent ovary.

Witschi (1948) explained the development of supernumerary ovaries by his work on migration of germ cells in the human embryo. Some of the germ cells fail to migrate and continue to live in the retroperitoneal areas. The surrounding mesenchyme becomes transformed into ovarian stroma, thus giving rise to a supernumerary ovary.

Because of their retroperitoneal situations they are often missed at laparotomy.

Supernumerary ovaries exhibit the functional and pathological capabilities of a normal ovary. Report on pregnancy following bilateral oophorectomy and menstruation persisting after bilateral ooporectomy have appeared in the literature by Malcolm, in 1903. Various tumours are reported to arise from supernumerary or accessory ovaries.

A report of 26 cases has appeared in the literature by different authors on cases of pelvic or abdominal tumours simulating ovarian tumours in women who already had two normal ovaries. But the confusion in the nomenclature and brevity of the description failed to specify whether they were from supernumerary or accessory ovary. The most common of such tumours were dermoid tumours though pseudomucinous cyst, serous cyst, papillary cyst and granulosa cell tumour are also reported.

The possibility of a dermoid tumour arising from sources other than an ovary has also to be borne in mind. The exact origin of extra-genital dermoid has been poorly explained. Warthein in 1916 believed that these tumours become detached from the ovary and implant over the omentum. Primary omental dermoids are extremely rare. Lexer & Beven in 1908 suggested that they could arise from the ectoderm that becomes invaginated during the closure of the abdominal wall.

Finding of the definite ovarian tissue along with the tumour proves beyond doubt that these tumours arise from an extra ovary.

In 7 cases of supernumerary ovaries so far reported only in one was the condition diagnosed pre-operatively because that patient had already had a bilateral salpingo-oophorectomy done (Pearl *et al* 1963).

Wharton stated in 1959 that he was unable to find a single instance in which a correct diagnosis was even suspected pre-operatively. In some cases, however the diagnosis is not made even in the operating room.

The case reported here makes the 8th case of supernumerary ovary giving rise to a malignant teratoma. The situation of the tumour, the absence of any connection with the parent ovary and the presence of ovarian stroma along with the tumour, fulfilled the criteria of a supernumerary ovary.

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See Figs. on Art Paper XI