TWISTED DYSGERMINOMA OF OVARY ASSOCIATED WITH FULL TERM PREGNANCY

by

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Introduction

Dysgerminoma of ovary is a rare neoplasm. Muller *et al* (1950) have reported that 1.1% of ovarian tumours were dysgerminomas. Debrux (1968) reported 5.7% in Sweden and 2.2% in Australia. There are few case reports from our country on dysgerminoma. Aggarwal and Saxena (1962) quoted 4.1%. Purandare and Patwardhan (1955) reported 6 cases of dysgerminoma out of 45 malignant ovarian tumours.

Its association with full term pregnancy is even more rare. Misra (1958) reviewed the world literature on 544 cases of dysgerminoma and reported that very few cases were associated with pregnancy. Philips and Gurcharan Kaur (1965), Chakrabarty (1965) and Kusum and Souza (1968), each published 1 case of dysgerminoma with pregnancy. Considering the above facts, this case, the first of its type in Himachal Pradesh, is reported here.

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CASE REPORT

S.D. aged 25 years, gravida, 3 was referred from Military Hospital, Simla on 20-9-1975 as a case of full term pregnancy. She gave history of amenorrhea of 9 months and acute distension of abdomen since 1 month.

Physical examination revealed an average built woman, General examination showed presence of anemia. Heart and lungs were normal.

On abdominal examination patient had a pendulous belly and two distinct lumps were seen in abdomen. (Fig. 1). Skin over the lumps was stretched and showed venous engorgment. Height of uterus was 34 weeks with transverse lie of the foetus and normal foetal heart sounds.

A second lump was present in right hypochondrium and right lumbar region, mobile nontender, separate from the liver but difficult to distinguish from a kidney lump. Lie of foetus became longitudinal (Vertex presentation) on 22-9-1975 spontaneously.

Blood examination showed Hb. was 9 gm%. Urine and stool examinations showed no abnormality. Blood urea 30 mgm%. Double dose I.V.P. showed normally functioning kidneys. Plain X-ray abdomen and pelvis showed normal pregnancy with another soft tissue shadow on right side.

A clinical diagnosis of full term pregnancy with ? Ovarian cyst or ?? hydronephrosis was made.

Patient had normal vaginal delivery on 5-10-1975 giving birth to a healthy male child. The cystic lump persisted. Patient was advised laparotomy but she refused. On 8-10-1975 at 5.25 A.M. patient had severe pain and consider-

ing torsion of ovarian cyst as a possibility emergency laparotomy was done.

A large cystic right ovarian tumour was removed and left sided tubectomy by modified Pomeyroy's method was carried out under spinal anaesthesia. The tumour was twisted 3 times from right to left and was untwisted. The pedicle showed very thick ovarian vessels. There was haemorrhagic fluid in peritoneal cavity.

She had fever 102°F at the time of operation which gradually declined and came down to normal, on third postoperative day. Rest of the postoperative period was uneventful and she was discharged in a fit condition on 20-10-75.

Pathological Findings

The tumour weighed 830 Gms. and measured 24 x 18 x 6 cm. External surface was smooth with congested vessels. Cut surface was partly solid and partly cystic with large dark brown haemorrhagic areas of necrosis. Cystic areas were all filled with haemorrhagic fluid (Fig. 2).

Microsections from tumour showed it to be composed of nests of large ovoid cells with abundant cytoplasm. The nucleus was large vesicular with nucleoli. These nests of cells were separated by thick strands of fibrous tissue septa which showed extensive lymphocytic infiltration. Tumour tissue in many areas showed marked haemorrhage and necrosis (Fig. 3).

The histopathological diagnosis of dysgerminema of ovary was made.

Follow-up

Patient was called for follow-up. She returned after 1½ years and no abnormality was detected. I.V.P. was also done to see the ureteric displacement by para-aortic lymph node enlargement but no abnormality was detected. Patient was advised to come for 6 monthly follow-up and till the time of reporting there was no recurrence of disease.

Discussion

Dysgerminoma is a tumour of early life. It is common in children before puberty and likewise in young adolescents (Novak and Woodruff, 1967). It should be remembered however that it is frequently found in adult women as has also been seen in the present case.

In most of the works of Meyer (1918, 1925, 1931b) great stress was laid upon the frequent occurrence of sexual underdevelopment and Pseudohermaphroditism associated with this tumour. No associated sexual abnormality was found in this patient and it must be emphasized that dysgerminoma has nothing to do with development of these sexual abnormalities which are congenital and not altered by the removal of tumour (Novak and Woodruff, 1967).

It is no longer believed that dysgerminoma connotes gonadal dysplasia and resultant sterility, (Novak and Woodruff, 1967). Dysgerminoma has been reported in parous patients (Kusum and Souza, 1968, Phillips and Gurcharan Kaur, 1965). Pregnancy has followed conservative surgery in dysgerminoma.

Involvement of right ovary is more commonly observed as has also been observed in the present case. Reddy and Anwal (1962) have also reported the localisation of tumour more commonly on the right side. Seegers have offered an explanation that embryologically the right ovary develops more poorly and slowly.

Twisting in solid ovarian tumours is a very rare complication as in this case. It may be due to mobility of tumour associated with softening engorgement and elongation of pedicle during pregnancy.

McKerron (1903) reported that torsion of pedicle is much more frequent in the pregnant and specially in the puerperial condition, the incidence being 12% during pregnancy and 22.7% during puerperium, because the rapid change in the anatomical relations of pelvic viscera, and lax abdominal musculature particularly favour twisting.

A controversy still persists regarding the management of a case of dysgerminoma. Brody (1961) believed in conser-

vative approach, while Pedowitz *et al* (1955) have favoured radical therapy which leads to subsequent loss of reproductive capacity. The latter is an important factor as these tumours are common in early child-bearing period. It is said that if the patient is young and the tumour is encapsulated and confined to one ovary conservative surgery may be done with a careful watch and follow-up of patient as was done in the present case. There are reports of successful pregnancies after conservative surgery (Kusum, 1969) and five year survival rate is reported to be 12.5% to 75%.

Two year follow-up of the present case did not reveal any recurrence of disease or metastasis.

Summary

1. A case of dysgerminoma of ovary associated with fullterm pregnancy undergoing torsion in puerperium in a 3rd gravida of 25 years is reported. She delivered a normal healthy male child following which the ovarian tumour got twisted.
2. Conservative Surgery was done.
3. A review of literature is presented.

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See Figs. on Art Paper II