DYSGERMINOMA OF THE OVARY

(Report of 7 Cases)

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Introduction

Dysgerminoma was first identified by Chenat in (1911). It was Meyer in 1925 who recognised this tumour as a separate entity and labelled it as Dysgerminoma. It was found to be identical histologically to testicular seminoma described by Cheuasu (1906) and Willis (1948). It is comparatively rare malignant ovarian neoplasm. Dysgerminoma is a tumour of germ cell origin without any specific sign and symptoms. After the complete survey of the world literature on dysgerminoma by Muller *et al* (1950), many other workers have published their papers on dysgerminoma.

The incidence of this tumour is reported to vary from 1.1% to 7.5% of all ovarian tumours. In Japan the overall incidence appears to be higher i.e. 10% Wider and O'leary (1968).

A few authors reported that this tumour is most frequently found in gonads of hermaphrodites and pseudo hermaphrodites (Meyer 1931, Wider and O'leary 1968), while in contrast to this others have found this tumour in patients having normal sex function (Pedowitz 1951, Brody 1961). The present paper consists of 7 cases of dysgerminoma proved histopathologically in the Department of Pathology and Microbiology from 1964 to 1977 out of total 700 ovarian neoplasms giving an incidence of 1%.

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CASE REPORTS

Case 1

K. 18 years, para 1 was admitted with a complaints of lump in abdomen and pain in abdomen 3 months. General and systemic examinations did not reveal any positive finding. On abdominal examination there was a mass measuring about 10 x 8 x 4 cm on left side. On vaginal examination, Cx-was pushed upward, Ut retroverted and retroflexed, normal in size, mobile. Rt fornix was free. In the left fornix a cystic mass was felt. Laparotomy was done. There was a left sided ovarian cyst measuring 10 x 8 x 4 cm., soft in consistancy with smooth surface and it was removed by salpingo-oophorectomy.

Case 2

L. aged 30 years old, multiparous woman was admitted 4 months after natural delivery as an emergency. She was having swelling in the abdomen and pain in abdomen for 6 months. On examination a well defined irregular cystic mass filling the lower abdomen was observed. It was mobile and tender. On vaginal examination the uterus was bulky and lying posteriorly to the cystic mass. On laparotomy an irregular ovarian cyst of greyish pink colour was found

on left side measuring 10 x 8 cm. There were no adhesions in the omentum and peritoneum. There was free haemorrhagic fluid in the peritoneal cavity which gave an impression of malignant cyst. Hysterectomy with bilateral salpingo-oophorectomy was done.

Case 3

R. 14 years old was admitted with the complaints of a rapidly increasing lump in abdomen. The patient was thin built. Secondary sexual character had not developed. On palpation a hard mass was felt. It was irregular in shape and freely mobile and on the right side. On vaginal examination uterus was retroverted and retroflexed. Left fornix was clear and right fornix was having a lump which was solid. At operation right ovary was not identified clearly but left ovary and other adenexa were normal. Right sided salpingo-oophorectomy was done.

Case 4

S. 12 years old, unmarried girl with menstrual history suggestive of puberty menorrhagia was admitted with severe distention of abdomen. On vaginal examination firm nodules were felt through the pouch of Douglas. Laparotomy revealed massive haemorrhage and the right ovary was enlarged to 19 x 16 cm in size. The tumour was lobulated soft and friable which was not adherent to the surrounding structures. Right sided salpingo-oophorectomy was done. Cut section of the tumour showed solid haemorrhagic area. The left ovary was normal.

Case 5

M. 20 years, was admitted for swelling in abdomen of 7 months duration which was increasing in size since last 2 months and pain abdomen for 7 months. O.H.-1 F.T.N.D. 2 years ago (no history abortion). M.H.-Menarche 14 years M.C. 3-4/30 days, regular average flow. General condition of the patient was average. On abdominal examination there was a swelling extending above the umblicus rising up to epigastrium. It was of variable consistency, at places cystic and at places firm or hard. It is fixed. On vaginal examination, cervix and vagina were healthy. Uterus was retroverted and retroflexed. In the pouch of Douglas and right fornix there was a mass of variable consistency. Left fornix was free. On laparotomy there was a big tumour rising up to almost the xiphisternum with thick yellowish capsule. It was adherent to peritoneum and omentum. Rigth ovary and fallopian tube could not be defined separately due to extensive infiltration. Left side adenexa was normal. Right ovariotomy was done.

Case 6

N. 35 years old multiparous woman was admitted with 2 months' amenorrhoea and mass in abdomen of 4 months duration. There was no evidence of distant metastases and her chest X-ray was clear. On laparotomy a large tumour 8″ x 6″ on right side and 7″ x 5″ on left side was found. Surface of the tumour was smooth and no adhesions were present. A total hysterectomy with bilateral salpingo-oophorectomy was done.

Case 7

A. 9 year old girl was operated at Sri Ganganagar and we received only tissue from both sided ovarian tumour with very little history. She was having gradually increasing lump in abdomen since last 8 months. No history of pain in abdomen.

Discussion

Dyserginoma usually occurs in the younger age group. In the present series the youngest patient was 9 years old while oldest was 35 years. The tumour is rare after 50 years. This tumour is usually unilateral but may involve both sides. Muller *et al* (1950) reported the incidence in right ovary as 50%, left ovary 35% and bilateral in 14.8% cases. In our series also right sided tumour was more common.

Though the tumour is hormonally inactive association with sexual maldevelopment, menstrual abnormalities and pseudohermaphroditism is variably reported. Cases of precocious sexual development have been reported. Meyer (1931) reported 27 cases of dysgerminoma co-existing with pseudohermaphroditism. However, there is increasing evidence that dysgerminoma occurs in sexually normal females.

In the present series of 7 cases also no such association was found.

In most instances the pre-operative manifestation and the gross, histopathological diagnosis of the tumour is not a problem. In our series, 6 cases out of 7 had a lump in abdomen while the seventh case was not examined clinically as only specimen was received. Menstrual irregularity and amenorrhoea was not the primary symptom in any of the cases.

A five years survival rate varies from 27% to 75%. The prognosis depends upon age, haemorrhagic areas, ascitis and presence of teratoma and choriocarcinoma. Wider and O'leary (1968) reported 5 years survival rate as 60% in younger patients (15-39 years). Prognosis in better in unilateral tumour with intect capsule. The survival rate being 89.79% with unilateral, 29.4% with bilateral tumours and 25.3% with metastasis or infiltration.

Summary

Seven cases of dysgerminoma of the ovary are reported. The literature on dysgerminoma of the ovary has been reviewed briefly.

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