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Case Study Report

NOVEL MANAGEMENT OF ENDODERMAL SINUS TUMOUR DURING PREGNANCY

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ABSTRACT

Endodermal Sinus Tumours are not common during pregnancy. It is the trimester they present and their size in the preoperative scanning along with lymph node metastasis which matters in management.

As most of these women are young we thought of a novel way of managing with laparoscope with no harm to the patient.

Keywords: Endodermal sinus tumour, alpha-fetoprotein, pregnancy.

INTRODUCTION

Endodermal sinus tumor (EST) is the third most frequent malignant germ cell tumour of the ovary. Occurrence of this tumor during pregnancy is rare. We report a case of endodermal sinus tumour during pregnancy which was managed laparoscopically. Laparoscopic management of this case adds to the treatment modalities of Endodermal sinus tumour which usually presents in the younger group of patients.

If adequate follow up is done the outcome is no different from those cases which are managed by laparotomies.

CASE REPORT

A 19 year old primigravida who was 7 weeks pregnant presented with increasing abdominal pain. Ultrasound examination showed a viable intrauterine pregnancy of 7 weeks gestation, a multiloculated right ovarian cyst of 16x11x7 cm size and ascites. Serum CA 125 was 95u/ml and ascites fluid tap performed at the time of Ultrasound showed no malignant cells.

The plan was to operate upon the cyst in the second trimester as the cyst appeared to be benign. She developed increasing abdominal pain at 8 weeks gestation and laparotomy was undertaken. Per-operatively a large haemorrhagic right ovarian cyst was found. The cyst had benign features, there was no evidence of any intra-abdominal metastasis and a right ovarian cystectomy was performed. The histological examination reported it to be endodermal sinus tumour.

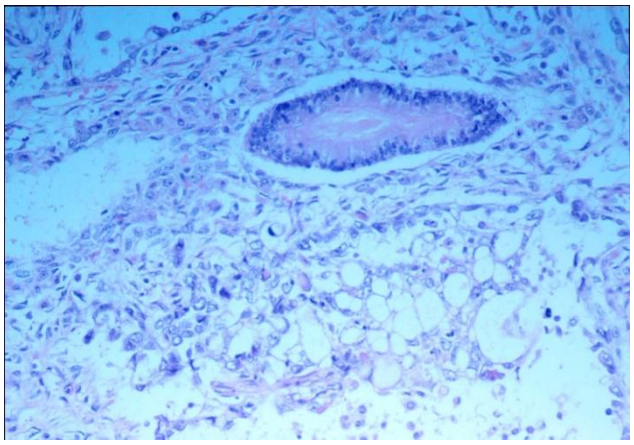
Serum alphafetoprotein (AFP) and human chorionic gonadotrophin (HCG) done postoperatively were 5600ku/L and 50623 respectively. Patient wishes regarding continuation of pregnancy were taken into account. Case was also discussed with Gynaecological Oncologist and it was planned to undertake a termination of pregnancy, right oophorectomy and omental biopsy. This procedure was undertaken laparoscopically. Histology of the right ovary showed a small nodule of tumor which did not breach the capsule, but no tumour cells were found in the omental biopsy. She had postoperative chemotherapy BEP regime. She was followed-up 6 weekly.

DISCUSSION

Endodermal sinus tumor is also referred to as "yolk sac carcinoma". They have the median age of 16-18 years. They occur unilaterally and metastasis to the contralateral ovary only occurs if there is peritoneal metastasis. Microscopically, the characterstic feature is the endodermal sinus, or Schiller-Duval body. Most lesions secrete Alpha-fetoprotein and there is a good concordance between the extent of disease and level of AFP. In pregnancy maternal serum AFP reaches its maximum concentration at about the 30th week of pregnancy and decreases until parturition. The rise in Alpha-fetoprotein seen in cases with EST is 150 times higher than that seen in normal pregnancy. If continuation of pregnancy is desired, tumour markers are not useful due to pregnancy related serum markers. [1]

Treatment consists of unilateral oophorectomy and surgical staging. The panoramic and magnified view of the peritoneal cavity with the laparoscope showed no metastatic deposits and prior ascites fluid aspirate was negative for malignant cells. Laparoscopic surgery during pregnancy is safe when performed in experienced hands and open laparoscopic procedure is also safe from oncological point of view. [2, 3]

Post-operatively patient had faster recovery than laparotomy. In this case no port site recurrence was reported during the follow-up period. In literature search cases of adnexal mass during pregnancy have been managed with help of laparoscope but this is a first case in which EST is managed laparoscopically.



Termination of pregnancy was performed due to maternal wishes and also the disease was diagnosed in the first trimester. The most vulnerable phase is from 10 days to 8 weeks after conception (organogenesis). The use of cytotoxic drug or radiation will increase the risk of fetal malformations during this phase. [5]

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