PREGNANCY WITH MALIGNANT OVARIAN TUMOUR WITH GOOD OUT COME : A CASE REPORT

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Summary

The incidence of cancer during pregnancy is increased in recent years. The rate of increase is attributed to, not only higher rate of cancer in general, but also to a delay in child-bearing age. We report such an uncommon case of pregnancy with malignant ovarian tumor. Our case is a 26 years 2nd gravida presented at 32 weeks of her pregnancy with acute abdomen in emergency department of BBMH, USTC. A thorough clinical examination and investigation revealed pregnancy with ovarian tumor with sub-acute intestinal obstruction. The patient is treated with surgery followed by chemotherapy. Now the patient is normal without evidence of disease upto 12 months with a healthy Baby. The case is selected due to the rarity of the condition and the diagnostic dilemma when it presents during pregnancy.

Key words

Malignant ovarian tumor; Pregnancy; Multi loculated mass.

Introduction

The pathology of ovarian neoplasm is one of the most complex area of gynecology because the ovary gives rise to a greater range and variety of tumor than does other organs. Primary ovarian cancer though common between 40-60 years of age, but no age is immune and among those, pregnancy is the most crucial period. Though germ cell tumors are more common, epithelial and other varieties are not so rare. Pregnancy does not exert any stimulatory effect on ovarian tumors. Among the reported cases of pregnancy with ovarian tumors most are benign and managed by surgery which is safe from second trimester onwards, with advent of anesthesia and improved neonatal support. In case of malignancy, mother is our first preference and surgery followed by chemotherapy is the treatment modalities.

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Case Report

A 26 years old 2nd gravida of middle class family admitted with complain of sudden over distension of abdomen with dull aching pain for last one month prior to her admission. Her pregnancy was planned, attended regular antenatal check up with usual sign-symptoms of pregnancy according to day of conception. For last 10 days she also experienced difficulties in breathing and bowel not moved for same duration. The patient had no remarkable medical problems. She was married for 7 years. First pregnancy induced with clomifen citrate 5 years back and had a healthy male baby. There were history of carcinoma breast among one of her sister, treated with surgery and CT.

At admission the patient was anxious, mildly anemic, accessible lymph nodes not enlarged, moderate oedema, dyspnoeic -respiratory rate-40 breaths/min, pulse-92bpm, B.P- 100/70 mm of hg. Per abdominally abdomen was tensely distended, height of uterus- 30cm, abdominal girth was 102cm. Fetal movement and fetal heart sound not distinctly perceived. Ascites present. Regarding investigations blood group- B+ve,Hb%- 8.5 gm/dl,ESR- 115 mm, CA-125 - more than 1000 IU/l. Other parameters were within normal limit. USG reveals -31 weeks of single alive pregnancy, bilateral ovarian mass, on right side, a well-defined mixed echogenic, irregular shape mass 12X10cm and on left side 7.2X7.1cm mass with same sonographic appearance. Moderate amount of ascites noted. Consultation with surgery experts diagnosed the patient as sub-acute intestinal obstruction along with pregnancy and ovarian tumor. The patient was managed conservatively for intestinal obstruction. Inj. Dexamethoasone given for lung maturation. Laparotomy was done 2 day after admission. Ascitic fluid was straw colour and collected for cytological examination. Baby delivered by transverse incision on lower

uterine segment,(Male,1.7kg). On right ovary there was a 10X12cm multi-loculated mass with both solid and cystic area which was adhere with surroundings. Another mass of about 5X6cm on left ovary with same features. On pelvic and peritoneal exploration, there were metastatic deposits on cul-de-sac, peritoneal surface and under surface of liver. Palpations of pelvic and para-aortic nodes were negative. Subtotal abdominal hysterectomy with bilateral salphingo-oophorectomy with partial omentectomy done. Ascitic fluid, peritoneal tissue and ovary sent for histopathology, reveals papillary adenocarcinoma of ovary(GRII) with peritoneal metastasis. The patient was staged as having an FIGO stage 3 C disease. The patient had an unremarkable postoperative course received 6 cycles chemotherapy with paclitaxel and carboplatin after proper counseling. The patient followed by computerized tomography scan of abdomen and serum tumor marker (CA-125) and found normal without evidence of disease upto 12 months, with healthy baby.

Discussion

With the use of routine ultrasound imaging in pregnancy, the findings of adnexal mass are 1 in 600 to 1500, among which 1-3% are malignant [1]. Ovary has a greater number and variety of tumors. The mode of development of ovarian tumor is often disputed. In pregnancy, common malignant ovarian tumors are of germ-cell, sex-cord stromal and less commonly invasive epithelial ovarian cancer [2]. Most ovarian malignancy present with non-specific symptoms like - dyspepsia, vomiting, abdominal discomfort, which are commonly associates of early pregnancy and thus misguides clinicians. But it may present with acute crisis like rupture, torsion or intestinal obstruction like our patient. The role of ovulation inducing drugs in pathophysiology of ovarian carcinoma is under study. In our patient, her first pregnancy was induced with drugs (clomiphen citrate). Hereditary predisposition play crucial role in development of ovarian tumor. In our patient one of her sister suffered and treated for breast carcinoma. Due to unavailable facilities, genetic screening not possible but this is indicated for our patient , especially for BRCA-2.

Roy P et al report 2 cases of papillary adenocarcinoma at 35weeks of pregnancy which are managed by surgery and subsequent CT [3]. In both patient the diagnosis was done incidentally like our patient.

Grzonka et al report 2 cases of papillary cyst adenocarcinoma GIII managed by total abdominal hysterectomy and omentectomy followed by chemotherapy [4]. Among two patient one died eight months after delivery. Both patients present with acute abdominal pain during pregnancy.

As a part of initial visit, every newly pregnant woman should undergo through reviews of symptoms, comprehensive physical examination and relevant investigation to diagnose occult malignancy specially if any risk factor present. Regarding investigation ultrasound and MRI are preferable modalities of imaging technique which are associated with minimal to no increase risk [5]. The tumor marker which increased in ovarian malignancy often affected by pregnancy and misleading, namely- CA-125, HCG, alpha-fetoprotein. Recently biomarker human epididymis protein-4 (HE-4) found to have lower value in pregnancy which increases in malignant ovarian tumor [6].

During planning treatment option, one must account for the wishes of the patient or family, stage of cancer at diagnosis, gestational age, effect of specific therapeutic option and availability of that, subsequent follow-up and 5 year survival, in collaboration with oncologist and neonatologist. The role of surgery is both diagnostic and therapeutic and primary adverse effect is prematurity. Because of increased risk of miscarriage in first trimester, surgery is deferred to 2nd trimester when possible. The impact of CT exposure depends on gestational age and specific agent used. After the period of organogenesis (First 8 weeks) the effect of CT gradually decreases with gestational age. The primary goal of cancer treatment during pregnancy should be to limit iatrogenic prematurity. Antenatal steroid can be safely administered to improve fetal outcome which is administered in our patient and up to first year post natal follow-up the baby is healthy.

After delivery histological evaluation of placenta should be performed to exclude metastasis [7]. For our patient this was not done. Woman whose receive CT after delivery, breast-feeding is contraindicated appropriate counseling regarding reoccurrence must be considered before fertility, preserving surgery which we prefer in case of borderline tumor.

Conclusion

For management of this patient the approach is multi-disciplinary obstetrician-gynecologist, feto-maternal medicine specialist, oncologist, neonatologist, pharmacist, and obvious psychologist. When malignancy is diagnosed, the obstetrician-gynecologist play key role in the initial evaluation and coordination of patient care. Pregnancy with malignant ovarian tumor is mysterious parallel journey of two persons, one toward life and another towards death. Though mother is our first preference every step from diagnosis to treatment considering its benefits for both of them.

Disclosure

All the authors declared no competing interest.

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