Abstract:
Dysgerminoma are the most common primitive germ cell tumours of the ovary. Incidence of dysgerminoma - 2-5 percent in pregnancy. Women in reproductive age group are most commonly affected, causing problem in conception and if pregnancy occurs it leads to fetomaternal compromise. It is extremely rare to have a successful pregnancy outcome. We report such an unique case of pregnancy associated with Dysgerminoma (stage III) and its successful outcome.

Keyword: Germ cell tumour, ovarian tumour, dysgerminoma.

CASE REPORT:
25 yrs G2P1L1 referred from health post at 34 weeks of gestation as a case of abdominal mass complication of pregnancy was admitted in high risk unit for further management. On admission: H/O 8 months of amenorrhoea, able to perceive foetal movements well. No h/o bleeding or leaking p/v. H/O abdominal pain for 1 month, Pain present in left hypochondriac region, continuous dull aching in nature. Not radiating, No aggravating and relieving factors. No h/o bladder and bowel disturbances. No h/o vomiting or diarrhoea, No h/o loss of appetite and loss of weight.

MENSTRUAL HISTORY
LMP- Not sure of dates, Regular menstrual cycles.

MARITAL HISTORY
Married since 5 yrs. Non-consanguinous Marriage.

OBSTETRIC HISTORY
I-Pregnancy-full term normal vaginal hospital delivery- 4yrs back-boy baby (Alive & healthy). II-Pregnancy-Booked at health post, spontaneous conception, no h/o contraceptives taken. Immunized. No dating or anomaly scan done. Antenatal period were uneventful except for abdominal pain and abdominal mass recently detected by USG & was referred here for further evaluation. No significant Past or family history.
GENERAL EXAMINATION:
Pt moderately built and nourished.
Afebrile
mildly anaemic,
bilateral pedal edema,
No lymphadenopathy ,Not icteric, all Vitals sta-
ble.
Breast and thyroid –Normal
Systemic Examination–CVS,RS and CNS nor-
mal.
ABDOMINAL EXAMINATION:
INSPECTION –Abdomen irregularly dis-
tended,fullness of flanks, striae gravida-
rum ,linea nigrae and Dilated veins present.No
scars.PALPATION – Uterus corresponds to
32wks with flanks full(ascites +), not acting ,
Presenting part–cephalic and mobile, Palpable
mass of about 18×10 cm occupying epigastric,
Left hypochondriac & lumbar region,non-tender,
firm in consistency,smooth surface,borders not
well-defined, fingers notinsuinated under Left
costal margins.AUSCULTATION : FHR-142/
min, regular rhythm.No bruit heard.PELVIC-
EXAMINATION:P/S- Cervix healthy ,No drain-
ing or bleeding seen.P/V- Cx 2cm long ,os
closed,PP vertex felt above brim ,no forniceal
fullness or tenderness,Pelvisadequate.P/R-
Rectal mucosa free, No nodules or mass felt in
POD.
INVESTIGATIONS:
HB-9 gm% and other basic investigation within
normal limits.TUMOUR MARKERS 1. CA125 -
139IU/ml2. LDH -280IUULTRASOUND : Done
after admission revealed complex heteroge-
neous mass extending fromepigastric to left
lumbar region with solid &cystic areas, pan-
creas and left kidney compressedposteri-
orly.IMPRESSION: ?ADNEXAL MASS / RETROPERITONEAL SARCOMA/ PEDEN-
CULATED FIBROIDMRI- Retroperitoneal
mass/? Sub-serosal fibroid/few enlarged para-
aortic lymph nodes.
SURGICAL ONCOLOGIST OPIN-
ION-Advised termination and to refer
after delivery for follow up .PLAN:
Planned to terminate pregnancy by
Elective LSCS. one course 0f Ster-
oids given.Surgery : Laparotomy
with Elective LSCS done under spi-
nal anaesthesia.Incision-Right para-
median, peritoneal fluid-400ml aspi-
rated. Bladder mobilised.LSCS done
in usual procedure and delivered an
alive preterm (Appropriate for GA)
boy baby of about 2.25kg which
criedimmediately at birth.Per oper-
ative findings :1.Left ovarian mass of
size 30×20 cm, soft to firm in consis-
tency, irregularly bosselated with
mixed solid and cystic areas adherent
to omentum ? Fibroma
2. Uterus-normal
3.Both tubes & Rt ovary –normal and
sterilization done on right side by
modified pomeroy’s technique.meroy’s
technique.
Since the mass was in an operable
state ,proceeded with LEFT
SALPINGO-OOPHERECTOMY AND
INFRACOLIC OMENTECTOMY.
SURGICAL STAGING PROCEEDED
IN CLOCKWISE FASHION FROM
CAECUM TO
RECTOSIGMOID COLON
6. Spleen & liver – Normal
7. Inspected small intestine & its mes-
ec n t r y
8. Scrapings from diaphragm taken.
9. No metastatic lesion made out.
10. Pelvic or Paraaortic lymph nodes
not enlarged.
POSTOPERATIVE PERIOD-
Uneventful.
Sutures removed on 8th POD.
HPE REPORT - DYSGERMINOMA WITH OMENTAL METASTASIS.
Pt discharged on 10th POD and referred to surgical oncology for further management.

FOLLOW UP –
Admitted in oncology ward for further evaluation.

X-ray chest, USG-Rt ovary & tube-normal

Staged as FIGO stage IIIa. Started on chemotherapy two weeks after surgery BEP regimen for 4 cycles. On Regular follow up

DISCUSSION
Ovarian cancer is the second most common cancer in pregnancy. (1) 20 to 30% of ovarian cancers associated with pregnancy are Dysgerminoma. (2) Incidence of ovarian cancers in pregnancy - 1 in 12,000 - 1 in 20,000. (1) It is usually unilateral in stage I (85-90%) and 10-15% bilateral. (2) Our case was found to be in stage IIIa. Age group - 10-30 yrs, most common (75%). (2) Mostly asymptomatic. (4) Symptoms - Abdominal pain, abdominal distention, nausea, vomiting, pressure symptoms on bladder and rectum. (4) Signs - palpable adnexal mass

Diagnosis: Imaging-USG, CT/MRI, LDH markedly elevated. Other investigations - CBC, LFT, X-ray chest required. (4) Tumour markers in pregnancy are not helpful due to lack of specificity and several markers are elevated inherent to pregnancy itself. (5) Metastasis - Direct extension, lymphatics and haematogenous spread - liver, lungs, brain.

TREATMENT
Primary treatment is surgical. Prognosis is good after a course of chemotherapy and regular follow-up. (2) & (3)
1. Unilateral oopherectomy in women desired of reproductive function depending on stage (Ia)
2. Total abdominal hysterectomy with bilateral salpingo-oopherectomy in women not desired of reproductive function.
3. If not feasible - cytoreductive surgery followed by chemotherapy.

Adequate surgical staging is essential. If surgical staging not done, adjuvant chemotherapy and regular follow up with CT abdomen and pelvis required.

CHEMOTHERAPY - treatment of choice and advantage of fertility preservation. (2) Most frequently used regimens - BEP (Bleomycin, etoposide, cisplatin) VBP (Vinblastin, bleomycin, cisplatin) for 4-6 cycles. (2)

HISTOPATHOLOGICAL EXAMINATION
Germ cells divided into clusters and lobules by fibrous septa rich in lymphocytes. (2) Pregnancy does not alter the prognosis of ovarian neoplasm but when associated with rupture or torsion then complications occur. Most ovarian neoplasm diagnosed in pregnancy are in stage I have good prognosis and dysgerminoma even in advanced stages got excellent prognosis.

PROGNOSIS - Stage I-95% (4)
Stage II-85% after chemotheraphy
Stage III-85% after chemotheraphy
Stage IV-85% after chemotheraphy
Recurrence rate-10%. Most recurrences are within first two years (5). chance of recurrence in preserved ovary is 5-10%. (4) other common recurrent sites are within peritoneal cavity and retroperitoneal lymphnodes. Follow up every two months for the first one year. CT ABDOMEN &PELVIS and TUMOUR MARKERS are mandatory at 6 and 12 months. (4)

**CONCLUSION**

Ovarian tumours is a rare entity but always to be kept as differential diagnosis in case of mass per abdomen in pregnancy. Availability of newer imaging techniques help in diagnosis and follow up of cases. Main treatment primarily is surgical including resection of primary lesion and proper surgical staging. Long term outcome of patients with ovarian Dysgerminoma is excellent.

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