



CASE REPORTS OF ASYMPTOMATIC PAROVARIAN CYSTS IN TERM PREGNANCY

Obstetrics & Gynaecology

Dr. Vaishnavi Dixit	Junior Resident, Department Of Obstetrics And Gynaecology, Santosh Medical College And Hospital Ghaziabad.
Dr Manisha Gupta*	HOD, professor, Department of Obstetrics and Gynaecology, Santosh medical college and hospital, Ghaziabad. *Corresponding Author
Dr Devika	Associate Professor, Department of Obstetrics and Gynaecology, Santosh medical college and hospital, Santosh deemed to be university, Ghaziabad
Dr Nayya Saini	Assistant Professor Department of Obstetrics and Gynecology, Santosh medical college and hospital, Santosh deemed to be university, Ghaziabad.

ABSTRACT

Aim & Objective: To discuss the clinical presentation and intra-op management of three cases of large Para ovarian masses in patients with term pregnancy. **Background:** Ovarian masses in term pregnancy are rare but clinically important. While many adnexal masses detected earlier resolve, those persisting at term can complicate delivery or cause acute issues like torsion, rupture, or infection. Imaging-primarily ultrasound and MRI-guides evaluation, but diagnosis may remain uncertain without surgery. Management requires a multidisciplinary approach, balancing maternal and fetal risks. These cases were coincidental findings during Lower segment caesarean section. **Case Summary:** We report series of cases of term pregnancy with asymptomatic adnexal masses coincidentally discovered during lower segment caesarean section. **Discussion:** These cases highlight the surgical challenges and the importance of careful decision in large Para-ovarian masses encountered during caesarean section., cystectomy performed in conjunction with caesarean delivery executed with favourable outcomes. Ongoing follow-up is essential to monitor for its recurrence. **Conclusion:** Preconception care and routine prenatal care, including USG examination, may optimize the detection and management of an adnexal mass. A suspected ovarian endometrioma identified prior to pregnancy may warrant surgical intervention due to the potential risk of spontaneous hemoperitoneum. Abdominal pain might be a clue for cyst torsion or rupture. [4]

KEYWORDS

INTRODUCTION

Para-ovarian masses during pregnancy are uncommon but clinically significant, particularly when identified in the third trimester. These adnexal lesions can range from benign cysts to complex masses with malignant potential. While many ovarian cysts detected early in pregnancy resolve spontaneously, persistent or enlarging masses may require surgical evaluation, especially when symptomatic or suspicious on imaging.

In term pregnancy, the presence of a large adnexal mass can complicate labour and delivery, potentially necessitating caesarean section. Additionally, Para-ovarian masses carry a risk of acute complications such as torsion, rupture, or infection, which may mandate emergency intervention.[1] Pregnancy-associated persistent adnexal masses with large size, complex or solid appearance and bilateral location can be managed surgically, which can decrease the risk of complications, such as torsion or rupture and which can diagnose malignancies early.[2]

Timely diagnosis and a multidisciplinary approach are essential to optimize outcomes for both mother and fetus. Surgical management may be considered based on gestational age, mass characteristics, size of cyst and clinical stability.

This case highlights the clinical challenges and decision-making involved in managing para ovarian mass diagnosed at term.

OVERVIEW

We report series of cases with large para-ovarian mass in term pregnancy, presenting to triage in active labour which require immediate intervention.

Case 1: Gravida 4 para 3 live 3 with 38wks 6day pregnancy with previous 3 caesarean sections presented to triage with cephalon pelvic disproportionate

Case 2: Full term primigravida with 39 weeks 5days presented to triage in active labour fetal distress.

Case 3: Full term Primigravida with 39wks 5days presented to triage in obstructed second stage of labour

In all cases, thorough history-taking and clinical examination were conducted. Essential preoperative investigations for anaesthesia clearance were promptly initiated. The patients were then prepared for emergency lower segment caesarean section (LSCS) and taken to the operating theatre for surgical management.

COMPARITIVE FINDINGS

CASE	CASE 1	CASE2	CASE3
P/A	Uterus term size, cephalic presentation contractions present, no accessory mass palpable	Ut term size, cephalic presentation contractions present FHR=80b/per min, no accessory mass palpable	Ut term size, cephalic presentation, contractions present, FHR =138, no accessory mass palpable
P/V	Os-3cm dilated, 20%effaced, show present, membranes present. presenting part vertex, station -2	Os-2cm dilated 40% effaced show+ membranes, liquor =msl, presenting part vertex station -3	Os-fully dilated, fully effaced show +, obstructed labour, show present, membranes present presenting part vertex station +1
Intra-op	A right sided intact para ovarian cyst 6*6 cm was identified after delivery of the baby. uterus closed and repositied in the abdomen.	10*10Cm cyst in the left ovary seen after delivery of baby while exteriorising the uterus. Uterus closed and repositied in the abdomen.	5*5 cm Right para ovarian cyst seen after uterus was exteriorised and after delivery of baby and uterus closed. and repositied in the abdomen

CASE	CASE 1	CASE2	CASE3
Treatment	Caesarean was performed in view of previous 3lscs in labour, delivery of the baby by cephalic presentation. Uterus closed in two layers without much difficulty. Cystectomy was then done for rt sided para-ovarian cyst. Haemostasis well achieved Cyst pedicle was clamped cut and ligated and intact cyst was sent for histopathology. Bilateral ovaries were normal. Intra-op blood loss was Average	Caesarean was performed in view of fetal bradycardia, delivery of the baby by cephalic presentation. Uterus closed in two layers without much difficulty. Cystectomy was then done for left sided ovarian cyst. Haemostasis well achieved Cyst pedicle was clamped cut and ligated and intact cyst was sent for histopathology. Bilateral ovaries were normal. Intra-op blood loss was Average	Caesarean was performed in view of 2 nd stage arrest, delivery of the baby by cephalic presentation. Uterus closed in two layers without much difficulty. Cystectomy was then done for rt sided para-ovarian cyst. Haemostasis well achieved Cyst pedicle was clamped cut and ligated and intact cyst was sent for histopathology. Bilateral ovaries were normal. Intra-op blood loss was Average
Post-op	Uneventful	Uneventful	Uneventful
F/u	Patient came for follow up after 10 days & suture removal done. No recurrent mass palpable	Patient came for follow up after 10 days & suture removal done. No recurrent mass palpable	Patient came for follow up after 10 days & suture removal done. No recurrent mass palpable
Gross	Simple Mucinous cyst	Simple serous cyst	Simple serous cyst
HPE	No evidence of ovarian parenchyma Lined by ciliated columnar epithelium	No evidence of ovarian parenchyma Lined by simple cuboidal epithelium	No evidence of ovarian parenchyma Lined by simple cuboidal epithelium
IMAGES			

DISCUSSION

- Para-ovarian cysts (also known as para-tubal cysts) are non-cancerous fluid-filled sacs that develop in the broad ligament -the tissue that connects the ovaries, fallopian tubes, and uterus. Müllerian (paramesonephric) and Wolffian (mesonephric) ducts grow mostly in parallel during development. Müllerian ducts eventually fuse. Fusion of Müllerian ducts creates a transverse fold, which becomes the broad ligament. Broad ligament contains Müllerian and Wolffian duct remnants, which can then become cystic.
- Microscopically-Paramesonephric cysts are lined by single layer of bland ciliated tubal epithelium
- Mesonephric cysts are lined by single layer of low cuboidal, non-ciliated epithelium with occasional clear cells.
- Mesothelial cysts are lined by single layer of flat or cuboidal, non-ciliated cells, which may show transitional cell metaplasia.

The complications in full term pregnancies with ovarian cyst in labour include:

- Maternal Complications.
- Can lead to hypovolemic shock,
- Ureteric Injury
- May result in urinary leakage, fistula, or need for reimplantation.
- Bowel Injury
- Fistula Formation [Vesicovaginal, ureterovaginal]
- Wound Infection or Dehiscence
- Pelvic Abscess or Peritonitis
- Thromboembolic Events
- Increased risk of DVT and pulmonary embolism,
- Urinary Diversion Complication

In our case, intraoperative findings suggested para-ovarian mass, which was managed surgically at the time of caesarean delivery. This approach avoids the risks of a separate future surgery and allows direct visualization and removal of the mass. However, this strategy must be balanced against potential risks, including **haemorrhage, adhesion formation, inadvertent injury to adjacent organs, and prolonged operative time.**

Histopathological evaluation remains the gold standard for definitive diagnosis. In this case, the final pathology confirmed a benign ovarian mass.

From an obstetric standpoint, the presence of an adnexal mass may lead to **malpresentation, labour obstruction,** or necessitate **caesarean delivery.** However, in most cases, especially when benign, adnexal masses do not significantly affect fetal outcomes if managed

appropriately.

CONCLUSION

Para ovarian cyst in pregnancy are usually asymptomatic, and thus, the first line of management is conservative. However, in the presence of complications, good selection criteria need to be applied to individualize patient care for optimal results. Caesarean cystectomy can be performed with good results in carefully selected cases, as was obtained in this case report.

REFERENCES

- Martone, S., Troia, L. & Luisi, S. Adnexal masses during pregnancy: management for a better approach. *Gynecol Surg* 18, 3 (2021). <https://doi.org/10.1186/s10397-021-01084-9>
- Türkçüoğlu I, Meydanlı MM, Engin-Ustün Y, Ustün Y, Kafkaslı A. Evaluation of histopathological features and pregnancy outcomes of pregnancy associated adnexal masses. *Journal of Obstetrics and Gynaecology: the Journal of the Institute of Obstetrics and Gynaecology*. 2009 Feb;29(2):107-109. DOI: 10.1080/01443610802678804. PMID: 19274541.
- Cathcart AM, Nezhat FR, Emerson J, et al. Adnexal masses during pregnancy: diagnosis, treatment, and prognosis. *American Journal of Obstetrics and Gynaecology*. 2023 Jun;228(6):601-612. DOI: 10.1016/j.ajog.2022.11.1291. PMID: 36410423.
- Yu C, Wang J, Lu W, et al. Analysis of adnexal mass managed during cesarean section. *Advances in Clinical and Experimental Medicine : Official Organ Wroclaw Medical University*. 2019 Apr;28(4):447-452. DOI: 10.17219/acem/77099. PMID: 30085429.