

**Introduction:** Giant ovarian cysts are categorized with sizes >20 cm. Ovarian malignancies are usually in advanced stages at the time of diagnosis because the symptomatology is very vague, no efficient screening methods are available and also the ovaries are not easily accessible for clinical examination. Because of this, various ovarian cancer prediction models are developed and the ADNEX model is the latest and its sensitivity and specificity are 93% and 81% respectively.

#### Objectives:

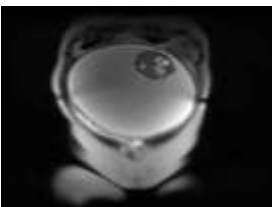
To present the diagnostic dilemmas in differentiating a massive ovarian mass as benign or borderline or malignant in spite of various diagnostic modalities.

#### CASE REPORT :

A 37 years old patient with vague symptoms came with a 32-34 weeks sized mass, clinically appearing benign. USG & MRI said ORADS 4. Tumor markers normal.

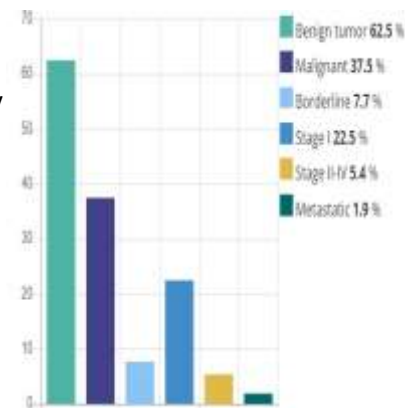


**Usg:** Large thin walled multi septated cystic lesion extending from right hemipelvis to epigastric region and solid cystic areas within. The solid cystic areas show minimal internal vascularity. Findings suggest possibility of O-RADS US category 4 lesion- likely ovarian mucinous tumour? Borderline mucinous cystadenoma?? Mucinous cystadenocarcinoma



**MRI:** T2W coronal image - Lesion shows solid cystic component attach to the wall of lesion.

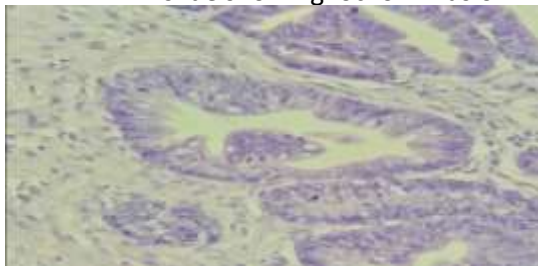
**The ADNEX model** results were as shown in the picture



**Frozen section:**



**Final hpr :** Report: stage 1 A mucinous cystadenocarcinoma, H&E stained slide showing foci of invasion



#### OPERATIVE FINDINGS

On exploratory laparotomy , there was no ascites. 30X25cms' size mass predominantly cystic in consistency arising from the right ovary with 3-4 foci of solid areas. Uterus bulky. Left side functional ovarian cyst of 3x4 cms' present. Frozen section was reported as benign, A total abdominal hysterectomy with bilateral salpingo- oophorectomy with infra colic omentectomy with pelvic lymph nodes sampling was done and sent for HPE.



#### Discussion:

- In our case, the provisional diagnosis on clinical examination & tumor marker levels was that of a benign ovarian mass.
- But USG & MRI report was ORADS 4 which suggested intermediate risk of malignancy (10 to <50%, a wide range).
- RMI suggested benign lesion and IOTA was not applicable.
- ADNEX model gave 37.5% risk of malignancy with 22.5% chances of stage 1. So, the final diagnosis was still doubtful.
- Intra operatively, it looked benign on gross examination and the frozen section was also reported benign, Still, as the patient was 37 years old and family was complete, the attendants were counselled adequately both pre and intra operatively and a TAH + BSO+ Infracolic omentectomy with pelvic LNs sampling was done and sent for HPE.
- The final diagnosis on HPE was stage **1A mucinous cystadenocarcinoma**.
- Intraoperative frozen section (IFS) as a diagnostic tool can aid procedural decision-making. But there are various factors influencing the accuracy of IFS like younger age, premenopause, borderline or early-stage mucinous and endometrioid tumors.
- All these were seen in our case.

#### Conclusion:

- The ADNEX model is a promising model though RMI is widely used.
- All diagnostic modalities have their own limitations but when in doubt, the case should be managed by a higher level of surgery.
- Adequate patient counselling and informed consent is of utmost importance

#### References:

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- Sundar S, Agarwal R, Davenport C, Scandrett K, Johnson S, Sengupta P, et al. Risk-prediction models in postmenopausal patients with symptoms of suspected ovarian cancer in the UK (ROCKETS): a multicentre, prospective diagnostic accuracy study. The Lancet Oncology. 2024 Oct;25(10):1371–86.