# Case Report - Ovarian Mucinous Cystadenoma with Botryomycosis

**Amrapali Jayaswal**
*Post Graduate in Training*
*Obstetrics and Gynaecology,*
*IMS & Sum Hospital Bhubaneswar*
*Email:amrapalijayaswal@gmail.com*

**Deepali Jayaswal**
*Under Graduate*
*MBBS, KIMS Hospital, Bhubaneswar*

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**Amrapali Jayaswal**
**Deepali Jayaswal**

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***Abstract***

*Background: A case of large Mucinous Cystadenoma of Ovary and chronic infection of foot Botromycosis presenting together is exceptionally rare especially in post-menopausal females of low resource settings of India.*

*Methodology: This study follows a 53-year-old post-menopausal female with 32-week size pelvic mass and discharging sinuses from her left foot following trauma, for whom CE-CT and tumour markers were done for evaluation of mass alongwith MRI foot and pus culture from foot. The RMi-IV score was 728 suggestive of high risk for malignancy calling for active intervention.*

*Results: Total Abdominal Hysterectomy with Bilateral Salpingo-Oophorectomy yielded a 6.3 kg Mucinous Cystadenoma with 1200 ml mucinous hemorrhagic fluid. The foot lesion was diagnosed as Botromycosis with Secondary Osteomyelitis owing to a chronic period of infection. The patient was given appropriate antibiotics and was planned for amputation.*

*Conclusion: Highly unlikely co-existence of Ovarian Mucinous Neoplasm with Staphylococcus aureus causing Botromycosis leading to osteomyelitis, necessitating sequential multidisciplinary surgical and medical management.*

**Case**

A 53 y/o Post-Menopausal, homemaker, of Baliguda, Kalahandi, of low SE status presented with complaints of mass per abdomen which was associated with pain, and increased in size over the past 1 month and was associated with increased frequency of micturition for loss of appetite and weight loss. She attained menopause 11 years back. Her Obstetric Index- Para 8 Living 8- all Vaginal non-institutional deliveries- last child birth being 18 years back. She was not a known case of hypertension, diabetes mellitus, asthma or any cardiovascular abnormalities or any other GastroIntestinal disorders. She had no family history of carcinomas of stomach, colon, breast, ovary or uterus. She had a history of trauma to her left foot while tending to cattle, after which she developed swelling of left foot. There was no history of treatment taken for this.

On examination, the patient was conscious and well oriented to time, place and person. She was of low build and nourishment (BMI- 17 kg/m2). She had moderate Pallor. She had localized swelling of left foot, with multiple discharging sinuses from which there was pus discharge, associated with local rise of temperature, not associated with pain, not associated with any bone deformities. No lymphadenopathy was noted. Bilaterally her breasts were soft. No Thyromegaly was noted. No abnormalities were noted on Respiratory and CardioVascular Examination.



On abdominal examination, the abdomen was distended, without local rise of temperature, without tenderness. The mass was corresponding to 32 weeks size, was regular in shape and borders, firm in consistency, non-tender, and the lower border of the mass could be reached. On per speculum examination, vaginal mucosa was healthy and cervix was flushed with vagina. On per vaginal examination, the mass moved independent of the mobility of the cervix but the uterine size could not be elicited.

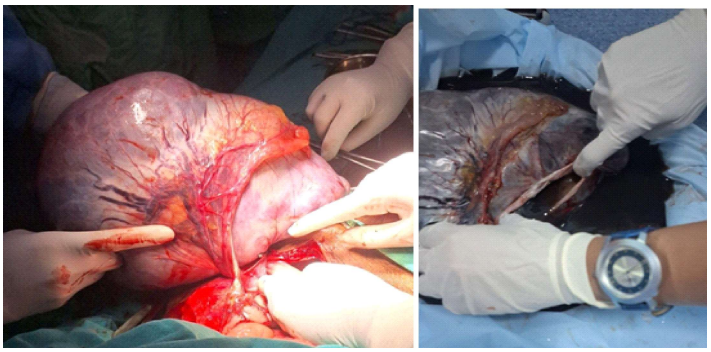
**Following tests were performed-** Hb- 11.6 g/dL, TLC- 15.07x10^3/mm3, TPC- 4.04x10^5/mm3; HIV/HBsAg/HCV- Non Reactive, Thyroid Profile- within normal limits (WNL), S Electrolytes- WNL, RFT- WNL; FBS- 86 mg/dL, PPBS- 104 mg/dL. Following tumor markers were done- CA-125- 22.75U/ML ; CEA- 1.47ng/mL, LDH- 138U/L, CA-

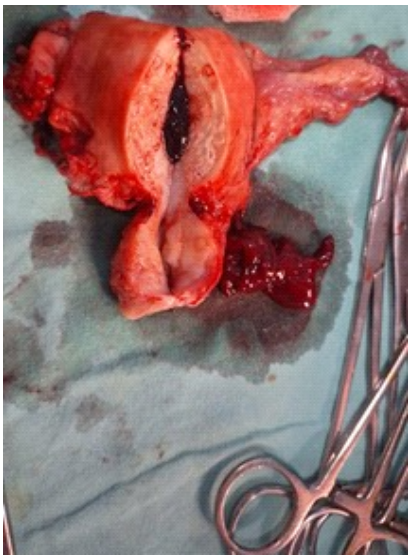
19.9- 1.00U/mL. Her CE-CT Abdomen and Pelvis was suggestive of a large well-defined hypodense lesion of 17.7 x 13.8 x7.1 cm with no vascularity, with no calcifications, minimal enhancing septations within the lesion (multiloculated) and enhancing lymph nodes in external iliac, left superficial inguinal and left internal obturator region- likely Mucinous Cystadenoma of Ovary.

Pus culture and sensitivity from her foot came to be positive for Staphylococcus aureus and on KOH wet mount, no fungal elements were noted. MRI of her left foot was suggestive of Osteomyelitic changes secondary to prolonged infection.



**Following was her management-** 3 pint PRBC pre-op and 1 pint PRBC intraop were transfused in view of moderate anemia correction. Total Abdominal Hysterectomy with Bilateral Salpingo-Oophorectomy was done. Grossly, a 6.3 kg cystic mass was retrieved. On Cut-Section, 1200 mL hemorrhagic fluid was suctioned out and multiple loculations were noted; the left ovary could not be seen separately. Right ovary was atrophied. Bilateral tubes were normal. Uterus was atrophied- of postmenopausal size.





Intra-operatively the patient developed hypotension and was kept under observation for 3 days in HDU. She was managed with injectable antibiotics and analgesics post-operatively for 7 days. Multidisciplinary management for suspected Madura Foot of Left Leg was done- diagnostic tests were done and daily dressing was done. The patient was discharged on Linezolid 600 mg twice daily for a week and in view of Secondary Osteomyelitis of left foot- which was non-salvageable- Amputation was planned.

**Discussion**

For this patient, considering her post-menopausal status and short duration of complaints related to mass per abdomen, Risk of Malignancy Scoring was done as follows USG Score calculated for >/= 2 features positive on radiological investigation-

| | |
|---|---|
| Multilocular | present (minimal enhancing septations within the lesion (multiloculated)") |
| Solid Areas | absent |
| Metastases | present (enhancing lymph nodes in external iliac, left superficial inguinal and Left internal obturator") |
| Ascites | absent |
| Bilateral | absent |

CA-125 being 22.75 IU/mL)

Post Menopausal status for Age Score

Size being > 7cm

| | USG Score | x | CA-125 (IU/mL) | x | Age | x | Size | = | TOTAL SCORE |
|---|---|---|---|---|---|---|---|---|---|
| RMI-I | 3 | x | 22.75 | x | 3 | | | = | 204.75 |
| RMI-II | 4 | x | 22.75 | x | 4 | | | = | 364 |
| RMI-III | 3 | x | 22.75 | x | 3 | | | = | 204.75 |
| RMI-IV | 4 | x | 22.75 | x | 4 | x | 2 (>7cm) | = | 728 |

RMI Scores I and III were between 25 and 250 and RMI-II was more than 250. As per studies, RMI-II has been considered more accurate than RMI-I and III.

RMI-IV, which is currently taken as the most accurate prognostic scoring for risk of malignancy, was more than 450, suggestive of high risk for malignancy.

Since Ovarian Carcinoma was suspected, FIGO staging was followed for treatment planning. Since Unilateral ovaries were involved, without spillage, without any peritoneal deposits, without involvement of extra-abdominal spread or lymph nodes, according to FIGO Staging, this comes under Stage I A of Ovarian Carcinoma. Since she is an elderly female, with family completed, alongwith Oophorectomy, Salpingectomy and Contralateral Oophorectomy was done with Total Hysterectomy. If this carcinoma was of Stage I B or C, Staging Laparotomy would be done- including Infracolic Omentectomy and Pelvic Lymph Node Dissection. If it was on Stage II and above, Cytoreduction or debulking surgery would be done- that is Total Abdominal Hysterectomy with Bilateral Salpingo-Oophorectomy with Complete Omentectomy with RetroPeritoneal Lymph Node Sampling with Resection of Metastatic Lymph Nodes and Segments of Bowel or Bladder with deposits. Other than this, in suspected Mucinous Cystadenoma, Prophylactic Appendectomy must be performed.

Mycetomas or Madura foot or Maduromycosis is a chronic granulomatous infection of the dermal and subcutaneous tissues caused by filamentous aerobic and anaerobic bacteria (actinomycetoma), true fungi (eumycetoma), and true bacteria, such as Staphylococcus aureus and Pseudomonas species (botryomycosis).

**Conclusion**

While Madura Foot- Actinomycetoma is highly common in the lower socio-economic class population of tropical country India- it was unique witnessing Madura Foot like-presentation mimicked by Staphylococcus aureus, also known as Botryomycosis, which further lead to Secondary Osteomyelitis, and led to multi-disciplinary management of this patient. This co-existence is an uncommonly reported and a rare finding to manage in chronology most appropriate for the patient.

**References**

1. Berek and Novak's Gynaecology (16th Ed)

2. Berek and Hacker's Gynecologic Oncology (6th Ed)
3. Comparison of four malignancy indices for adnexal masses- https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3188716/
4. FIGO and TNM Staging of Ovarian (with Fallopian Tube and Peritoneal cancer)- https://obgyn.onlinelibrary.wiley.com/doi/full/10.1002/ijgo.12614
5. Mycetoma- an update- www.ncbi.nlm.nih.gov/pmc/articles/PMC5527712