University Journal of Surgery and Surgical Specialities

ISSN 2455-2860 2017, Vol. 3(5)

# A case of Malakoplakia of the genitourinary tract

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**Abstract :** Chronic inflammatory conditions and malignancies often present very similarly misleading us in making a diagnosis. Here we present a case of a 30 year old woman who underwent laparotomy for suspected ovarian malignancy and histopathology reports were suggestive of malakoplakia. It is a rare histiocytic disease that occurs in all organs common in GU tract, particularly bladder. Malakoplakia can clinically simulate tumours and can be associated with tumours, infections and immunosuppression. Inefficient killing of the microorganism by the macrophages as evidenced by the presence of Michaelis Gutman bodies is the hallmark of diagnosis.

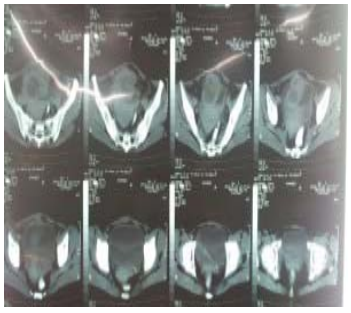
**Keyword :**malakoplakia, genitourinary tract, laparotomy, phagocytosis, Michaelis gutman bodies

## INTRODUCTION

Chronic inflammatory conditions and malignancies often present very similarly misleading us in making a diagnosis. Here we present a case of a 30 year old woman who underwent laparotomy for suspected ovarian malignancy and histopathology reports were suggestive of malakoplakia. It is a rare histiocytic disease that occurs in all organs; common in GU tract, particularly bladder; also gastrointestinal tract (most commonly colon, followed by stomach and duodenum), central nervous system, female genital tract.

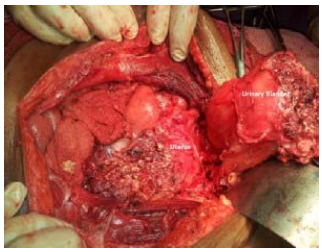
## CASE REPORT

A 30 year old female presented to the OPD at Government Royapettah hospital with complaints of abdominal pain for the past 1 month. She also had vomiting and fever on and off for the past 1 month. She gave a history of loss of weight and appetite. There was no history suggestive of bowel and bladder disturbances. She was an old case of pulmonary tuberculosis for which she had completed a 6 month course of anti tuberculous therapy in 2004. She was certified to be disease free following the treatment. She was not a diabetic or hypertensive. Her menstrual history was unremarkable. She had completed her family. On clinical examination she was found to have a vague ill defined mass in the hypogastric region extending into the right iliac fossa. Ultrasonography of the abdomen and pelvis revealed a large irregular cystic space occupying lesion arising from the pelvis suggesting ovarian origin. Contrast enhanced computerised tomography of the abdomen was done and it revealed a large ovarian mass along with right hydro ureteronephrosis along with a minimal amount of free fluid in the pouch of douglas. . CA 125 was slightly elevated and found to be 36.2 IU/ml (normal - <30 IU/ml).

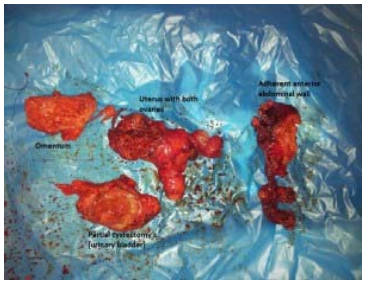


**CECT of pelvis**

A diagnosis of ovarian tumour was made and the patient planned for surgery. Cystoscopy and stenting of right ureter was done preoperatively. Laparotomy was done and the following findings were noted: (i) Mass found adherent to the anterior abdominal wall (ii) Cyst of size 8X8 cm arising from the Right ovary (iii) Mass found adherent to the dome of the bladder. Total abdominal hysterectomy along with bilateral salphingooophorectomy and partial cystectomy was done. Infracolic omentectomy was also performed.



**Peroperative findings**
The specimen was sent for histopathological examination. Biposy results came back as acute on chronic oophoritis with malakoplakic reaction with chronic abscess. There was no evidence of malignancy in the specimen.




**Resected specimen**

**DISCUSSION**
The first human case of malakoplakia was described by von Hansemann, who coined the term 'malakoplakia'. Malakoplakia is an inflammatory condition presenting as a plaque or a nodule that usually affects the genitourinary tract. Clinically and macroscopically malakoplakia can simulate tumours and hence it is often misdiagnosed as a malignant condition preoperatively. It appears to be more common in the immunocompromised (HIV, renal transplant recipients) and women. Mean age at diagnosis is fifth decade. It is believed to result from the inadequate killing of bacteria by macrophages or monocytes that exhibit defective phagolysosomal activity. Partially digested bacteria accumulate in monocytes or macrophages and lead to the deposition of calcium and iron on residual bacterial glycolipid. The presence of the resulting basophilic inclusion structure, the Michaelis-Gutmann body, is considered pathognomonic for malakoplakia. Studies have suggested that a decreased intracellular cyclic guanosine monophosphate (cGMP) level may interfere with adequate microtubular function and lysosomal activity, leading to an incomplete elimination of bacteria from macrophages and monocytes. The management of malakoplakia consists of both medical and surgical methods. Medical management consists of long term treatment with antibiotics which concentrate in macrophages such as cotrimoxazole. Antibiotic treatment directed against E-coli also provides a high rate of cure. Bethanechol a choline agonist has been used in conjunction with antibiotics as it is believed to correct the reduced c-GMP levels and aid in phagocytosis. Correcting the underlying immunosuppressive condition may also help in treatment of malakoplakia. However in the present case scenario with a suspicion of ovarian malignancy surgery was the only option as it is useful in both diagnosing and treating the condition. So we went ahead with surgery. Our patient remains well on the most recent follow up.

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