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A rare mucinous adenocarcinoma of urinary bladder- Diagnostic challenges and vision of oncopathologists: Single Case report

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Abstract: Primary mucinous adenocarcinoma is an urologic entity comprising of 2 % of all bladder tumours. We present a case of a 26 years female presenting with a mass diagnosed as adnexal SOL in ultrasonography, histopathologically confirmed to be primary mucinous adenocarcinoma of the bladder. We report this case keeping in mind that the tumour is generally diagnosed at a later stage and hence has a poor prognosis and also to emphasize the role histopathology in the confirmation of its diagnosis.
Keywords: Bladder, Mucinous Adenocarcinoma, Primary.

INTRODUCTION

Bladder Adenocarcinoma is a rare entity among bladder tumours. It generally presents as metastatic bladder carcinoma with primary in the gastrointestinal tract. Primary mucinous adenocarcinoma of the bladder is rarer comprising of only less than 2% of all cancers [1]. We present a case of primary mucinous adenocarcinoma of the bladder.

CASE REPORT

26 years married female presented to the gynaecological outdoor with pain in lower abdomen for 6-8 months. She did not have any menstrual irregularities and had a single child of 5 years of age. There was no other significant co-morbidity. Per vaginal examination revealed a solid-cystic mass palpable around the right and anterior fornix. The size of the uterus could not be made out separately. Peritoneal fluid examination was negative for malignancy. CA-125 was elevated.

Ultrasonography of the abdomen revealed a complex right adnexal SOL having cystic component measuring 11x 10x 8.1cm. Contrast enhanced CT scan of the whole abdomen showed Right ovarian mixed density tumour likely to be malignant. [Fig 1].

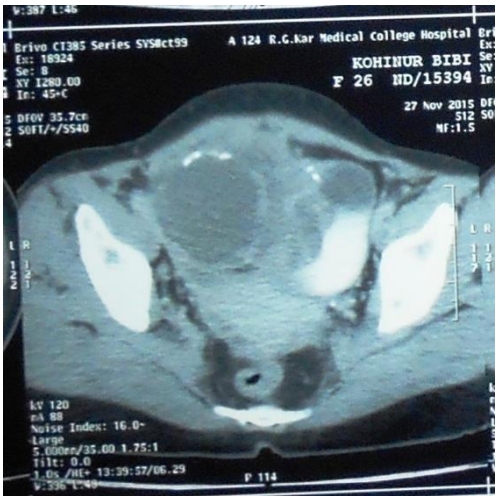

Fig 1: Contrast enhanced CT scan of the whole abdomen showing 'Right ovarian' mixed density tumour.(which on laparotomy turned out to be bladder SOL)

Laparotomy was planned for the patient. Both the adnexa were found to be absolutely healthy. The mass was seen arising from the bladder. The mass was removed and sent for histopathological examination. Part of omentum showing tumour deposits were also sent

Gross examination revealed single irregular greyish brown lesion measuring 13x10x6 cm. Cut section showed partly cystic areas containing mucinous fluid and partly solid areas. [Fig 2] Outer surface showed irregular friable papillary projections. Part of omentum was also submitted

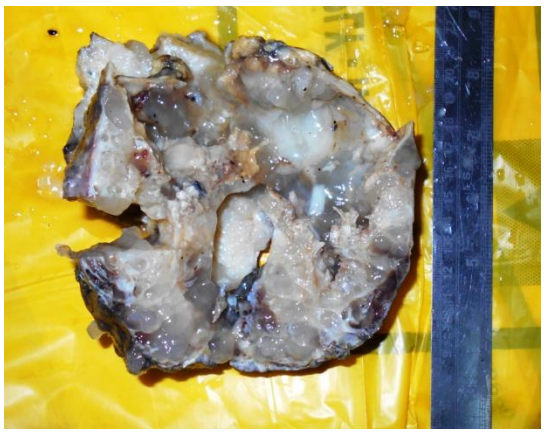

Fig 2: Single irregular greyish brown lesion measuring 13x10x6 cm cut section of which shows partly cystic areas containing mucinous fluid and partly solid areas

Tissue was processed, paraffin blocks were made cut and the prepared sections on the glass slide were stained with Hematoxylin and eosin stain. Microscopic examination showed tissue having urothelial lining containing extracellular and intracellular lakes of mucin below it [Fig 3 and Fig 4]. The diagnosis was made as infiltrating primary mucinous adenocarcinoma of the bladder extending upto the deep muscle. The sections from omentum showed tumour deposits.

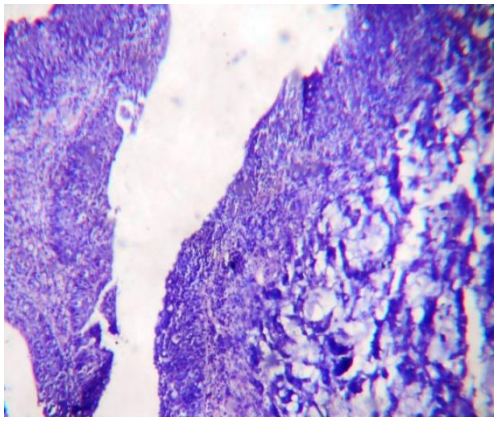

Fig 3: Microscopic view showing Hematoxylin and eosin stained tissue having urothelial lining containing extracellular and intracellular lakes of mucin below it [low power view]

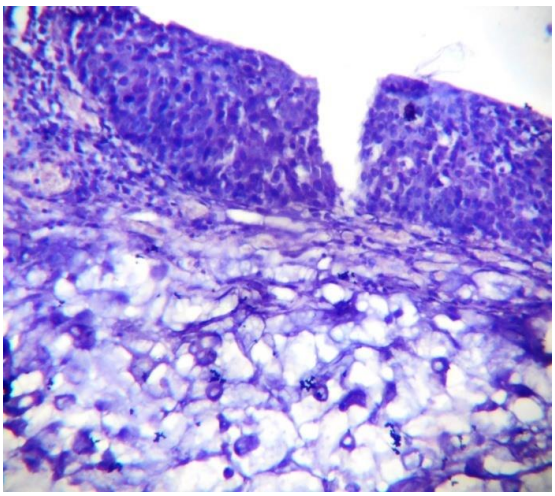

Fig 4: Microscopic view showing Hematoxylin and eosin stained tissue having urothelial lining containing extracellular and intracellular lakes of mucin below it [high power view]

Extensive and thorough clinical work up on the patient did not reveal any other focus of malignancy in the patient. The patient is now under close follow up.

DISCUSSION

Metastatic carcinoma is the common cause of Bladder adenocarcinoma. Primary mucinous adenocarcinoma comprises of only 0.5-2 % [1]. It generally arises from the bladder base. The incidence of the cancer increases with age and peaks between 60-80 years of age [2].

The main etiological factors of adenocarcinomas are intestinal metaplasia due to chronic irritation, persistent urachal remnants and ectopic vesicae [3]. The common presentations are hematuria, dysuria, nocturia, increased frequency and lower abdominal pain [4].

Adenocarcinoma of the bladder are of the following histologic types- Adenocarcinoma not otherwise specified, enteric type signet ring cells , mucinous adenocarcinoma, clear cell adenocarcionma, hepatoid adenocarcionma, mixed adenocarcinoma [5]. Cystoscopically, the bladder wall shows papillary or nodular growth which is not different from any other urothelial neoplasms [4].

Immunohistochemistry is not very specific for this carcinoma but a primary carcinoma can be differentiated from a metastasis from the gut by doing a panel of CK20, CK 7 .Bladder carcinomas are generally CK20+/CK7 variable whereas metastatic colon cancer is almost always CK20+ and CK7-.7 [6].

The possible differential diagnosis of this carcinoma are- Metastatic adenocarcinoma from gastrointestinal tract, colonic metaplasia, and urothelial carcinoma with glandular differentiation, cystitis

glandular is and mullerianosis out of which metastatic disease can be ruled out by thorough work up and immunohistochemistry and urothelial carcinoma with glandular differentiation shows minimal mucin along with glands surrounded by urothelial type of cells. Prognosis of the disease depends on the advancement of the disease. But it has been seen that urachal tumours tend to have better short term survival than non urachal tumours.

CONCLUSION

We present this case to emphasize that these tumours are so aggressive that they can mislead the clinician into suspecting an adnexal mass in a young female patient which is more common considering the age and the radiological findings. The role of a thorough work up and meticulous histopathological examination is indispensible in the diagnosis of these tumours.

DECLARATION OF CONFLICTING INTERESTS

The authors declared no conflicts of interest with respect to the authorship and/or publication of this article.

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