

Metastatic adenocarcinoma in testis presenting as a testicular mass – a case report and review of literature

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Testicular metastasis presenting as a testicular mass is an extremely rare condition. There are only nine previously reported cases where testicular mass was

the first clinical manifestation of underlying malignancy. Here we report a case of metastatic mucin secreting adenocarcinoma in testis presenting as a testicular mass with unknown primary. We have given a brief review of literature about the spread of tumor to testes.

Key Words: testicular metastasis

Case report

A 56-year old male patient presented with a painless testicular swelling for 2 months. On examination, he had a hard, non-tender left testicular swelling of size 10 cm X 10 cm. Right testis was normal. Per abdominal examination and per rectal examination was normal. Supraclavicular lymph node was not palpable. Serum alpha feto protein and Serum beta hCG levels were within normal limits. Ultrasonography of abdomen and pelvis was normal. Chest X-ray was normal. The clinical diagnosis was that of a primary testicular

tumor, most probably seminoma (in view of normal tumor markers). A high inguinal orchidectomy was done. Histopathology reported by an experienced onco-pathologist, showed metastatic mucin secreting adenocarcinoma in the testis Figure 1. On Immunohistochemistry (IHC) tumor was positive for CEA, but negative for PSA and vimentin. Serum CEA and serum PSA were normal. CT scan of thorax and abdomen was normal. Upper and lower GI endoscopy was normal. Diagnosis was that of a metastatic adenocarcinoma with testicular metastasis with unknown primary. The patient was offered palliative chemotherapy, which he refused. The patient was kept under surveillance. The patient followed up after 3 months with history of severe breathlessness. The chest X-ray showed bilateral, multiple pulmonary metastases Figure 2. In view of poor general condition of the patient and advanced

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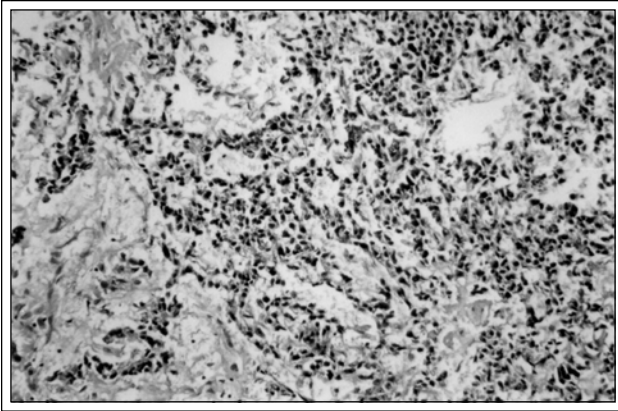


Figure 1. Mucin secreting Adenocarcinoma. Magnification: 10x10 X.

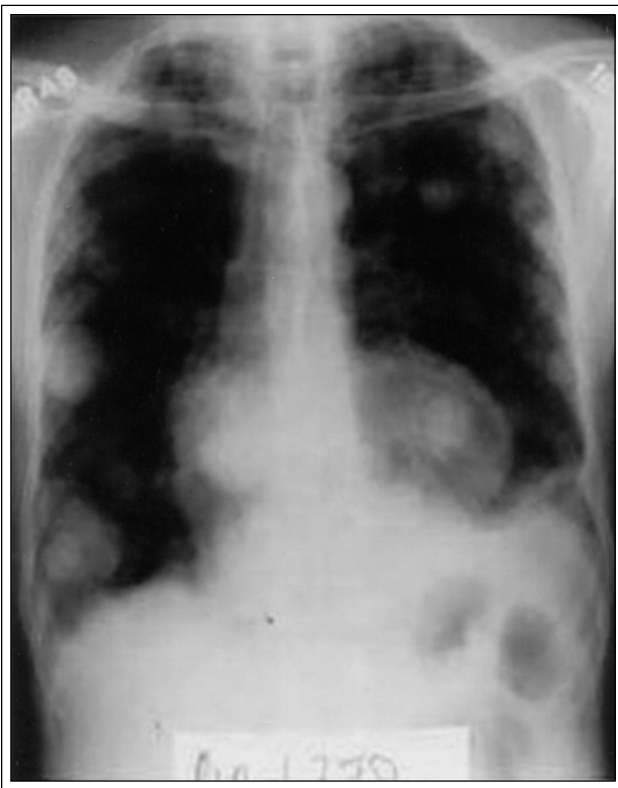


Figure 2. Chest X-ray showing bilateral pulmonary metastases.

nature of disease, he was offered symptomatic treatment only. The patient expired after 1 week.

Discussion and review of literature

Testicular metastases other than leukaemic deposits are rare and occur as a part of disseminated disease. They are usually incidental findings at autopsy, or

found at histopathology following orchidectomy for carcinoma prostate.¹ The incidence of testicular metastasis is 0.02% to 0.06%.¹ Testicular metastasis presenting as a testicular mass is an extremely rare condition. There are only nine previously reported cases where testicular mass was the first clinical manifestation of underlying malignancy.²

The literature shows that the commonest site of primary is prostate, followed by lung, gastrointestinal tract, melanoma and kidney. Prostate and lung constitute more than 50% of primaries.² However in our case, with normal per rectal examination, normal ultra-sonography, normal serum PSA and negative PSA on IHC, prostate is unlikely to be a primary. Site of primary can be lung or gastrointestinal tract. However, no investigation could find the site of primary.

There are various postulated routes of metastases retrograde venous, arterial or lymphatic spread, transperitoneal seeding through patent processes vaginalis and retrograde spread through vas deference.¹ Renal cell carcinoma rarely metastasises to same side testis by spermatic vessels in retrograde manner. Dropped metastasis from abdominal malignancies can reach testis through patent processes vaginalis. Carcinoma prostate can metastasise to testis via vas deference in retrograde fashion.

Haupt et al found that patients with metastatic testicular tumors are older than those with primary testicular tumors. The histological pattern shows predominant interstitial involvement with relative sparing of tubules with more lymphatic and vascular embolisation.²

The precise explanation for the extreme rarity of testicular metastasis is unknown. Tiltman mentioned that testicular metastasis depends upon two variables, namely, the likelihood of tumor cells being carried to the testis and ability of these cells to establish as a metastatic growth.³ He implied that the second variable is probably the stronger determinant and is dependent on various local factors in the testis. Tiltman speculated that relative lower temperature of the intra-scrotal testis could be one possibility. □

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