CASE REPORTS

TESTICULAR TUMOUR – AN UNUSUAL PRESENTATION

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INTRODUCTION

Testicular tumours are the commonest malignancy in males between 20 and 40 years of age and account for approx 1% of cancers in male. They most commonly present as painless scrotal mass or dull ache and sensation of heaviness in the testis. It may present with widespread pulmonary or abdominal metastasis. In our case patient presented with DVT, which is an unusual presentation for testicular tumours. Although there was no clinical evidence of testicular involvement, however para aortic lymphadenopathy on CT scan and ultrasound abdomen raised the suspicion for testicular involvement.

CASE REPORT

A patient 25 years old male presented with complaints of pain abdomen off and on for the last 2 months. Then he noticed that his left leg was swollen and it was gradually increasing until he had severe pain and limitation of movements of left leg. On General physical and Systemic examination there was no positive findings except swelling of left leg. Clinically tests were normal. His ultrasound left leg was requested to rule out DVT, which showed deep vein thrombosis of left femoral vein. Right leg deep veins were normal. Because of the persistence of his symptoms CT scan was done after 2 weeks. His CT scan abdomen showed paraortic and paracaval lymphadenopathy (fig. 1). There was thrombosis of both femoral and iliac veins as well as inferior vena cava upto renal hilum. Slices of lower chest showed bilateral nodular soft tissue shadows suggesting evidence of metastasis. Ultrasound testes were performed to look for the cause of lymphadenopathy although there were no testicular complaints and clinical examination revealed no testicular mass. Ultrasound right testes showed illdefined hypoechoic area with a blob of calcification (fig. 2). His alpha-fetoproteins and beta HCG levels were raised. LDH, Protein C, Protein S and Antithrombin-III levels were within normal limits. His X-ray chest showed innumerable, well defined, rounded soft tissue density nodules scattered in whole chest due to metastasis (fig. 3). Right Orchiectomy was done and long spermatic cord was excised and tissue sent for histopathological examination which showed Embryonal cell carcinoma of right testes. He is being treated by Chemotherapy. Two courses have been given. There is marked regression of pulmonary metastasis (fig. 4).

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DISCUSSION

95% of testicular neoplasms are germ cell in origin, 4% lymphomas and 1% includes metastasis, Leydig cell & Sertoli cell tumours. 50% of Germ cell tumours are pure Seminomas, which are less aggressive and present at 30-45 years of age. Remaining 50% are Non Seminomatous Germ Cell Tumours (NSGCT) [1]. They present in younger age group (peak 15-30 years); majority produce biochemical tumour markers like Beta HCG or Alpha Fetoproteins.

Risk factors include undescended testis, microlithiasis [2,3] testicular atrophy, previous testicular malignancy or low birth weight.

Sonography is the standard imaging technique used to identify testicular carcinoma. It has a high sensitivity, but it must be combined with physical examination to achieve the best specificity. Tumours are predominantly hypoechoic; occasionally there is associated hydrocele. Seminomas are well defined and uniformly hypoechoic. NSGCT show significant echogenic areas of fibrosis or calcification and echofree cystic areas.

Differential Diagnosis includes focal or diffuse acute orchitis, abscess, infarct or haemorrhage. The clinical presentation and course usually permits differentiation. The management [4] of testicular tumours depends heavily on the detection and treatment of lymph node metastasis. Lymph node involvement virtually always starts on the side of affected testicle. Bilateral involvement is uncommon when primary is left

sided, but is more often encountered when starts in right testicle. Tumour may extend retrogradely into mesenteric lymph nodes and antegradely into retrocrural, mediastinal, and supraclavicular lymph nodes. Drainage into thoracic duct may occur; with subsequent hematogenous spread to the Lungs, liver, brain and skeleton.

CT scan is the conventional staging method [5]. Royal Marsden staging system for testicular tumour is as under:

Stage-1 No evidence of metastases

1M Rising tumour markers

Stage-II Abdominal lymph node metastases

A 2 cm diameter or less

B Between 2 & 5 cm diameter

C 5 cm diameter or above

Stage-III Supradiaphragmatic nodal metastasis

M Mediastinal

N Cervical or axillary

O Without abdominal lymph node metastases

ABC Relates to size as described in stage II

Stage-IV Extralymphatic metastases

Lung

L1 3 metastases or less

L2 > 3 metastases, all 2 cm diameter or less

L3 > 3 metastases, atleast one above 2 cm diameter

H Liver metastases

Br Cerebral metastase

Bo Bone metastases

CT or MRI scanning should cover the pelvis, abdomen and chest. In a retrospective study by the Medical Research Council [6] adverse prognostic factors were found to be marked elevation of the tumour markers alpha feto-protein (AFP) and human chorionic gonadotrophin (HCG), mediastinal lymphadenopathy greater than 5 cm diameter, more than 20 lung metastases and/or liver, bone or brain metastases.

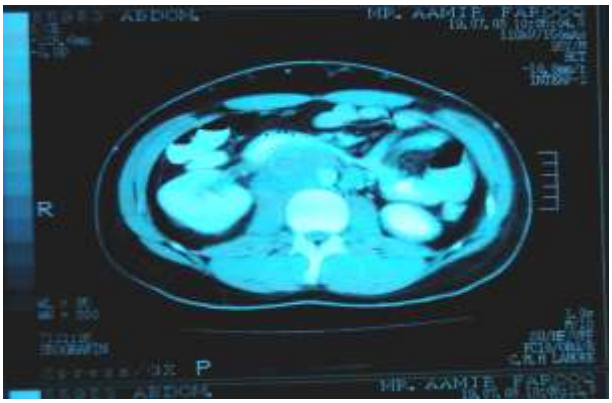

Fig. 1: CT Scan Abdomen- Paraortic and paracaval lymphadenopathy

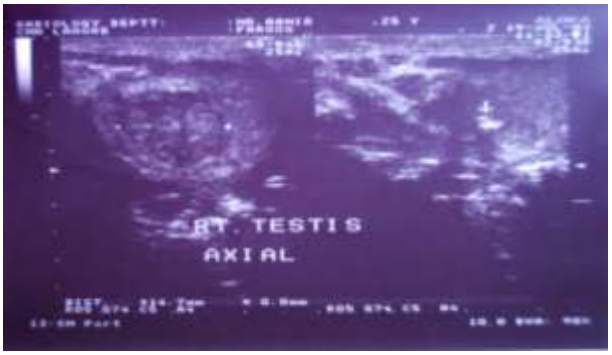

Fig. 2: Ultrasound Rt Testis- Illdefined hypoechoic area with a blob of calcification

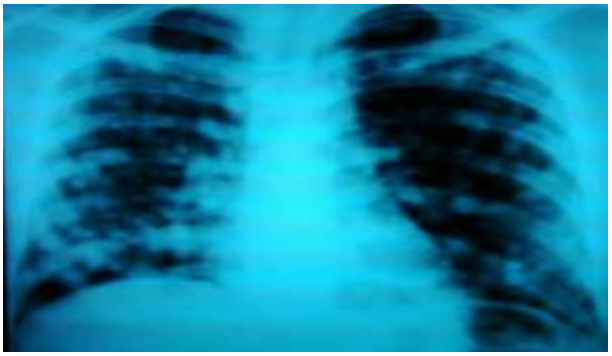

Fig. 3: X-ray Chest Before Chemotherapy- Innumerable, well defined, rounded soft tissue density nodules scattered in whole chest

Fig. 4: X ray Chest Post chemotherapy- Lung fields are clear.

The tumours are curable, being sensitive to chemotherapy and radiotherapy, and the prognosis is good even in the presence of metastatic disease [7]. Cure rates of 90% plus should be achieved in patients with early stage disease and more than 50% with advanced disease.

In patients with testicular cancer, imaging, together with tumour markers, is pivotal in management. It provides essential information on the stage and volume of disease, enabling appropriate treatment to be given, and defines certain groups of patients in whom it is safe to adopt a surveillance policy, thereby avoiding unnecessary treatment.

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