Polyarthritis Associated with Testicular Tumour
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Abstract
Rarely rheumatological features may dominate and is the cause of missed or delayed diagnosis of a malignant lesion. A case is presented wherein the patient with embryonal type of testicular tumour masqueraded with symmetrical polyarthritis with small joint involvement. p53 antigen was detected in testicular tissue. Such an example is indeed unreported in literature to the best of our knowledge. ©

INTRODUCTION
A variety of musculoskeletal syndrome may be the presenting manifestation of an occult or overt malignant neoplastic process. Actual direct invasion in musculoskeletal tissue may not be present.1 Cancer of lung, breast and haematological malignancies are known to be associated with rheumatological features.1,2 Literature is silent on occurrence of such features in patients suffering from malignant testicular tumours.

The following case serves to illustrate such an association.

CASE REPORT
JP, 35 years male was admitted to the medical ward of the University Hospital with pain in joints and painless swelling of both thigh of 2 months duration. He had lost considerable weight since the onset. Joint pain appeared simultaneously in all peripheral joints including small joints of hands and feet. Joint swelling was present in knee bilaterally, but morning stiffness was not complained of by the patient. History of fever, cough, back pain were denied. Over the past few years, he had been complaining of vague fullness in right inguinoscrotal region. Doctor suspected it to be “hernia” - according to the patient.

On examination, he looked pale, afebrile and anxious and weighed 43kg. Jaundice, lymphadenopathy and oedema were absent. Systemic examination revealed few crepitations in left mid zone of chest. Bony cage was normal. Abdomen was soft, and no mass lesion was palpable. Ascites was not detected. Hernial orifices were normal. Right testicle was enlarged with loss of testicular sensation. A few veins were visible over the scrotal skin on the same side. All larger peripheral joints were tender on palpation. Both the knee joints showed effusion. “Squeeze sign” was positive over hand joints. All peripheral pulsations were palpable and the skin was normal.

Results of investigations were as follows - Haemoglobin was 9.0 gm%, total leucocyte count 11,000 per cmm with N 83%, L 11%, E 4% M 2%. ESR was 42mm in first hour. Blood smear showed normocytic normochromic picture, with no abnormal cells. Blood biochemical profile was within normal limits. Serum uric acid levels was 3.52 mg/dl. Blood culture was sterile. Urine analysis showed no abnormality. Serological tests showed rheumatoid factor 18.01 IU/L. C-reactive protein 20 mg/dl, HLAB-27 was negative. Synovial fluid examination revealed, total cells 52000, N 20% L 80% with no evidence of abnormal cells or crystals. X-ray of chest showed multiple ‘cannon ball’ shadows in both lung fields (Fig. 1). X-ray of hand and wrist joint were normal. Ultrasonography of scrotum showed right testicular tumour with minimal hydrocoelee. Ultrasonography of abdomen, showed multiple hypoechoic lesions in the liver which was enlarged. Cholelithiasis was also detected.

Patient was treated conservatively, with analgesics and intravenous fluids but the response to analgesics was poor. On 7th day of admission, right orchidectomy was performed under local anaesthesia. Histopathology of testicular mass showed embryonal type of testicular tumour. Immunohistochemistry tests for p53 was immunoreactive. A diagnosis of right sided testicular tumour with metastasis in liver, masquerading as chronic peripheral arthropathy was made. Cholelithiasis was a chance finding.

DISCUSSION
Articular manifestation is the most common form of rheumatological features found in patients with malignancy.1 Joint involvement may be monoarticular
or polyarticular. The latter may be asymmetrical or symmetrical. The articular features may antedate, accompany or follow an otherwise overt malignancy. Occurrence of symmetrical polyarthritis in association with a primary testicular tumour is yet unreported. The patient was harboring the tumour masquerading as ‘hernia’ for over 2 years. The articular features were also treated in isolation over the some length of time, since it mimicked rheumatoid arthritis, but without relief to the patient. Quick remission of symptoms followed orchidectomy.

Several studies have indicated a link between rheumatic diseases, autoimmune phenomenon and cancers. The relationship appears to be bidirectional at all levels i.e. between rheumatic diseases with or without autoimmune phenomenon and cancers and between cancers and rheumatic manifestations with autoimmune aberrations. Hussain et al have reported ANA positivity in malignant diseases. In Bartfeld’s Survey incidence of positivity of rheumatoid factor in serum in malignancies ranged between 1% to 20%. Results of investigation on the patient under discussion failed to show any direct aetiological correlation between testicular tumour and arthritic features.

p53 is a tumour suppressor gene and plays a well defined role in malignant disease. It has also been found to be expressed in chronic inflammatory arthritis as well as in arthritis associated with malignancy. Expression of p53 is arthritis, may suggest its possible role in autoimmune phenomenon associated with malignancy. It may well be a forerunner of malignancy. Our patient is a case in point.

Diagnosis of polyarthritis associated with malignancy require a high index of suspicion on the part of physician. Because, the case may have a varied pattern of joint involvement and arthritis may predate the diagnosis of underlying malignancy.

**REFERENCES**


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**Announcement**


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