

## Letter to Editor

### Embryonal Carcinoma Of The Testis masquerading As Epididymitis

Sir,

Testicular tumours are a heterogeneous group composed of germ cell and sex-cord/stromal tumours. Germ cell tumours arise from totipotential cells; differentiate in different directions determining their morphological appearance and their designation. They form 94-96% of all testicular tumours, and are all malignant. The commonest is seminoma (40-50%), rarer tumours are embryonal carcinoma(EC), yolk-sac tumour(YST), and teratoma.. EC is composed of primitive carcinoma-like cells with minimal or no signs of differentiation. Hence it is aggressive with a poor prognosis.<sup>[1]</sup> This is a case of EC which presented clinically as epididymitis and the diagnosis was established only after Fine Needle Aspiration Cytology (FNAC).

A 19 year old student presented with backache, fever and a small painful swelling in the scrotum. Ultrasonography suggested epididymitis. The patient was treated conservatively, but there was no relief. FNAC of the swelling was done to rule out tuberculous epididymitis.

FNAC showed cellular smears with

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cells arranged singly, in aggregates, and in a glandular pattern. The cells were large with vesicular nuclei, large nucleoli, and indistinct, pale vacuolated cytoplasm. This cytological picture was suggestive of a malignant germ cell tumour. Following this a CT scan of the abdomen and scrotum showed a small nodule in the testis, and a 5x4 cms. metastatic nodule near the left renal artery. Serum Alpha-fetoprotein(AFP) was found to be elevated.

An orchidectomy was done and sent for histopathological examination. The specimen of the testis with epididymis measured 5x3 cms. Cut section showed a mass measuring 3x2 cms, arising from the the upper pole of the testis and invading into the epididymis. It had a variegated appearance. Microscopically, a necrotic tumour with cells arranged in solid sheets, trabecular, tubular patterns, in the form of anastomosing cords, and in syncytial groups were seen. These cells had vesicular nuclei with prominent nucleoli and moderate amounts of eosinophilic to vacuolated cytoplasm. Intra and extracellular hyaline globules and occasional embryoid bodies were seen. A diagnosis of embryonal carcinoma with yolk sac component was made. This patient had metastasis at presentation and he expired within a year.

Most ECs occur during the 3<sup>rd</sup> decade of life and present with a painless testicular mass. 66% of the patients have metastasis at diagnosis.<sup>[2,3]</sup> As pure neoplasms ECs are relatively rare. Most of them contain a yolk sac component. AFP is a major fetal serum protein synthesized in the yolk sac and fetal hepatocytes.

The AFP positivity indicates yolk sac differentiation.<sup>[4]</sup> AFP is an important diagnostic aid, as well as a means of monitoring treatment and detecting recurrences. In tumours with yolk-sac differentiation the prognosis varies only with the stage of the disease and does not appear to affect the outcome adversely with current treatment modalities.<sup>[4]</sup>

This case though mistaken clinically as epididymitis was diagnosed on FNAC. The simplicity of the procedure and the absence of tumour implantation into the scrotum, has given FNAC a positive role in the pre-operative diagnosis of testicular tumours.<sup>[5]</sup> Serum levels of tumour markers used in conjunction with cytological findings are helpful in making a fairly accurate diagnosis.<sup>[5]</sup>

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**Source of Support: Nil Conflict of Interest: Nil**