

# CASE REPORT

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## F.N.A.C DIAGNOSIS OF A PURE LEYDIG TUMOUR OF THE TESTIS PRESENTING WITH GYNAECOMASTIA AND INFERTILITY: A RARE CASE REPORT

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**ABSTRACT:** Leydig cell tumours of the testis are rare and comprise only 3-5% of the testicular tumours. Some present with endocrinal abnormality and some do not. Here we present a case which was diagnosed as Leydig cell tumour of the testis by F.N.A.C which was later confirmed by histopathology. This case is being presented because of its rarity, a paucity of the number of cases reported, and a scarcity of literature too. This also adds to the value of F.N.A.C in a conservative approach like enucleation for the small or hidden tumours of the testis.

**KEYWORDS:** FNAC, Leydig cell tumor, Histopathology.

**CASE REPORT: INTRODUCTION:** Leydig cell tumours of the testis are rare tumours comprising 3-5% of the testicular tumours. The literature pertaining to the F.N.A.C diagnosis of these tumours is not many. This case is being presented as it was diagnosed by F.N.A.C and later confirmed by Histopathology and add to the number of cases and literature.

**CASE PRESENTATION:** A 42 years male approached with a painless testicular swelling for the past one year. He had gynaecomastia and Azoospermia. An FNAC was done in the department of Pathology and stained with Maygrunwald Giemsa. (MGG). F.N.A.C. smears studied showed tumor cells in singles and clusters perched onto the fibromuscular stroma. Cells were large, round to polyhedral with distinct nucleus and abundant cytoplasm with vacuolations in some (Fig. 1). A diagnosis of the Leydig cell tumour of the testis was opined. Based on cytology an Orchidectomy was done and specimen was sent to surgical pathology. We received an enlarged testis measuring 7x5x6 cms with the spermatic cord. Cut section was homogeneous and grey white. Tunica was intact and the tumour looked confined to the testis (Fig. 2). The specimen was routinely fixed and processed. Histopathology showed round to polygonal cells with distinct nucleus and eosinophilic cytoplasm and arranged in sheets and separated by delicate fibrous septae (Fig. 3). No mitotic figures or necrosis was noted. No lymphatic or capsular invasion or infiltration of spermatic cord was seen. A diagnosis of Leydig cell tumour of the testis was made on histopathology.

**DISCUSSION:** There is not much literatures available on the diagnosis of Leydig cell tumour of the testis by F.N.AC.<sup>[1]</sup> The etiological factors so far thought of are excessive hormonal stimulation, Cryptorchidism, infertility, overexposure to the pesticides or radiation.<sup>[2]</sup> It can occur in pre pubertal age group of 5-10Yrs and adults between 30 to 60 yrs.<sup>[3]</sup> The symptom may vary from a mild discomfort to a significant swelling of the testis.<sup>[4]</sup> The incidence of Leydig cell

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tumours is 3-5% of all the testicular tumours and malignant forms are only 10-15% of these.<sup>[3]</sup> The Leydig cell tumours can occur in a pure or mixed form with the other sex cord-stromal tumours. They can also occur in extra testicular sites such as the Spinal cord, adrenal glands, epididymis or the ovaries. Mitotic figures, poor differentiation, local invasion or metastasis show the malignant behaviour of the tumour. Some of the cases present with virilization causing precocious puberty in male children and hypertension in adults due to an over production of androgens and some present with feminisation with Gynaecomastia, loss of libido and erectile function, impotence and infertility.<sup>[5]</sup> Intracytoplasmic or intranuclear Reinke's Crystals which can clinch the diagnosis can be present in only 40% of the cases.<sup>[6]</sup> Some of the cases present with virilisation causing precocious puberty in male children and hypertension in adults due to over production of androgens and some present with feminisation with Gynaecomastia (as noted in our case), loss of libido and erectile function, impotence and infertility.<sup>[5]</sup> In some there may not be any hormonal imbalance. The percentage of the Leydig cell tumours has significantly increased than quoted in the literature as the better diagnosing aids such as ultrasound guided technology can detect even the hidden small nodules.<sup>[7]</sup>

The main idea of this case report is to notify this case and add to the numerical total and add to the literature.

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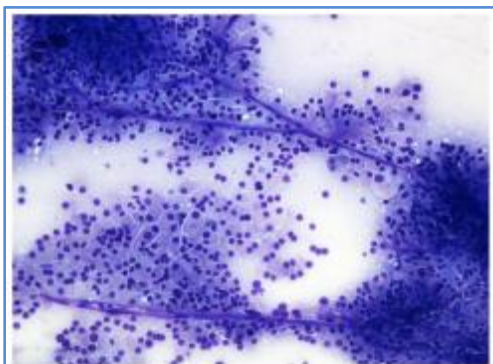


Fig 1 Cytology showing cells arranged in sheets (MGG 400X)



Fig 2: Gross Image of testis showing homogenous grey white tumor

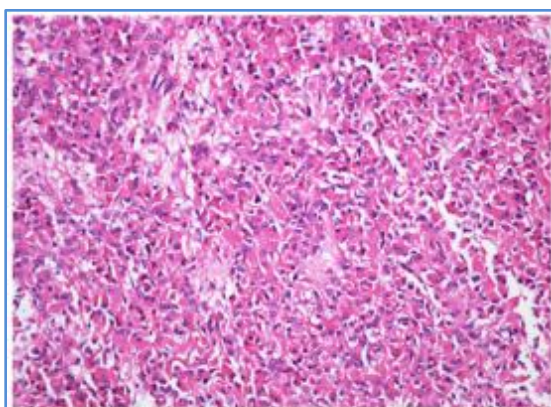


Fig 3 Histology showing features of Leydig cell tumour.

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