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**IMMATURE TERATOMA: TESTICLE**

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## ABSTRACT

*An immature teratoma is a teratoma that is known to contain immature anaplastic elements and is often known as malignant teratoma. Around 95% of testicular cancer is germ cell tumor (GCT). GCT is further divided into Non seminomatous GCT (NSGCT) and Seminoma. NSGCT include choriocarcinoma, embryonal carcinoma, yolk sac tumor, teratoma and mixed tumor. Among these only 2-6% of teratoma is pure teratoma. Pure teratoma can be subdivided into prepubertal and post pubertal. Among these two subgroups, the prognosis is also different. We report here a rare case of pure post-pubertal immature teratoma.*

**KEYWORDS:** *Immature Teratoma, Testis, Rare Neoplasm*

## INTRODUCTION

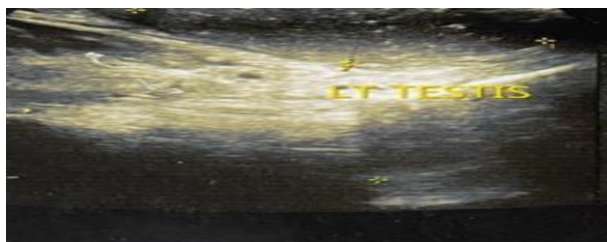
Primary testicular tumor is a rare tumor and is known to account for only 1% of all male tumors. These are mostly seen in young men of age around (20-35) years. Testicular cancer is common in developed countries compared to developing and under developed countries. Nearly 95% of all testicular cancers are germ cell tumors with almost equally divided further into Seminoma and Non Seminomatous. Seminomas are known to diagnose between (30-34) yrs of age in men. Geographical distribution is highly variable as the incidence is upto ( 9 per 1,00,000) in North America and Western European countries while it is just (less than 1 per 1,00,000) in Asian countries. There are some known risk factors to testicular tumor and they include undescended testicle, male infertility, cryptorchidism, hypospadiasis, smoking, cannabis abuse, family positive history. The relative risk for testicular tumor is 6% in undescended testis and nearly 2% is contralateral testis.

**Case report:** A 40 year old male presented in surgery department at some private hospital with swelling in scrotum, abdominal distension and back pain. Swelling in scrotum was insidious in onset, progressive, not associated with pain. Patient also presented with pain in back, insidious in onset, sharp pain, pain is not radiating and pain was not relieved with medication.

Investigations were carried out for which right inguinal orchidectomy was carried out. Patient was sent to Radiation Oncology Department at GMCH-32 Chandigarh for further management.

### **Investigation:**

- USG B/L testis: Left testicle showed a solid mass within testis.



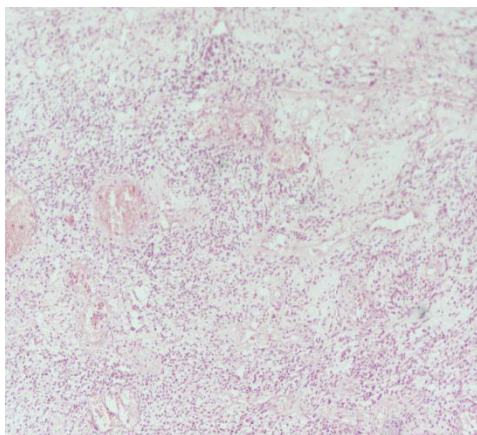
**Fig 1: Ultrasound shows hard mass in Left testis**

- CECT abdomen: retroperitoneal conglomerate lymphadenopathy seen and heterogeneous mass in left testis.
- CECT chest: - Multiple soft tissue nodule and branchy opacities in B/L lung field. Sign of endobronchial/hematogenous metastasis. (largest ms 3.9\* 1.2cm)
- LDH -612
- Beta HCG & AFP- Raise above normal level.

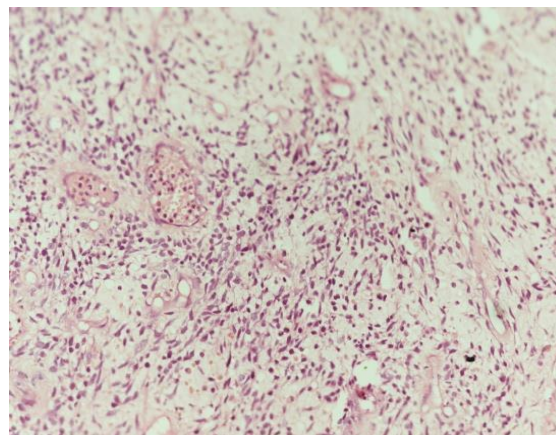
### **Histopathological Examination:**

1. Tumor comprise of admixture of various tissues. Sun forming component of tumor, are numerous islands of hyaline cartilage, are of bone formation and immature mesenchymal (cellular areas containing spindle shaped stellate cell). There are also muscle fibres, myocytes, few eccrine glands and fibroma collagenic tumor.
2. Orchidectomy specimen showed –immature teratoma

**Fig 2:**



**Fig 3:**



**Fig 2 & 3:** Shows Sun forming component of tumor, are numerous islands of hyaline cartilage, are of bone formation and immature mesenchymal (cellular areas containing spindle shaped stellate cell)

**Treatment:** Treatment approach of testicular tumor is based on Radiological investigations, tumor marker. In testicular tumor, never approach transrotal biopsy as it leads to tumor spillage.

Treatment approach is radical inguinal orchidectomy followed either by curative/ radiotherapy or chemotherapy depending on the size of tumor.

In this case patient came with advanced disease so we gave systemic chemotherapy (BEP) regimen (Inj bleomycin, etoposide, cisplatin)

Patient had 3 cycles of BEP regimen followed by 2 more cycles of EP regimen.

After 5 cycles of first line chemotherapy (3 cycles of BEP followed by 2 cycles of EP regimen).

CECT chest + abdomen + pelvis were carried out.

CECT scan showed progression of disease with multiple lung mets and mesentery deposits. (Suggestive of increased / progression of disease compared to previous scan)

Patient was given second line chemotherapy, Inj Gemcitabine 1000 mg/ m<sup>2</sup> and paclitaxel 100 mg/ m<sup>2</sup>. 03 cycles of second line chemotherapy was given, after which radiological investigation was done. CECT chest, abdomen and pelvis were done showed progression of disease.

**CONCLUSION:** Immature teratoma in testicle in 40 year old male is very rare neoplasm. Tumor is rare in term of incidence (<1%). As teratoma is highly malignant tumor with poor prognosis. So aggressive management is carried out to treat the tumor. Till date, treatment approach is Radical Inguinal orchidectomy is the primary treatment. Further treatment depends on staging of tumor. For early stage tumor surveillance or radiotherapy is considered and for advanced disease start patient on systemic chemotherapy (BEP) regimen. If patient further shows progression of disease start patient on 2<sup>nd</sup> line chemotherapy and keep patient on regular follow up with radiological investigations and tumor markers in their follow up periods.

So further reporting of such rare (<1%) cases in literature are of paramount importance to give the disease risk factor, prognosis and treatment.