

## Retroperitoneal Cystic Teratoma- A Case Report and Clinicopathological Correlation

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### Abstract

The retroperitoneum is an uncommon site for primary germ cell tumors in adult, especially mature cystic teratoma. It may be very large and may appear malignant to surgeon when it gets adhered to adjacent structures. Histopathological examination is an obligatory part of treatment management. We present a rare case of large mature cystic teratoma in 18 years old female who presented with vague pain and mass abdomen in the surgical outpatient door.

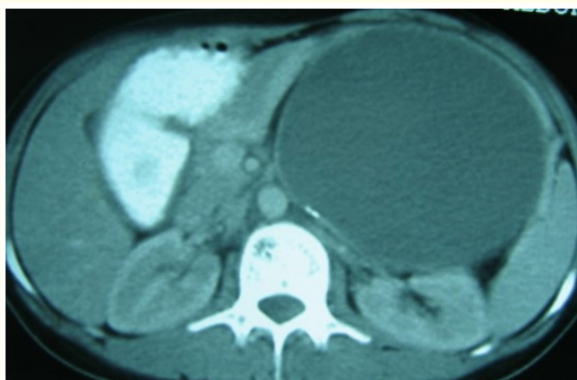
**Keywords:** Cyst; Teratoma; Germ Cell Tumor

### Introduction

Teratomas are type of non-seminomatous germ cell tumors and are usually located in either the sacrococcygeal region or in the gonads. These are congenital tumors consisting of all three germ cell layer derivatives. Retroperitoneal teratomas are commonly seen in newborns and early childhood, but are rarely reported in adults [1,2]. The current case report presents a patient of giant retroperitoneal teratoma in a 18-years-old female.

### Case Report

A 28-year-old female presented in the surgical outpatient door with chief complaints of vague pain and palpable mass abdomen since 5 years. On clinical examination, firm to hard mass was palpated in left hypochondrium. Computed tomography abdomen with pelvis demonstrated large well defined fluid filled density with air fluid level and few foci of wall calcification in left hypochondrial region displacing splenic vessels anteriorly. It measures 13.5x 12.7cms in axial plane with craniocaudal extent of 16 cms in coronal plane (Figure 1).



**Figure 1:** CT abdomen displaying large cystic mass in retroperitoneum.

It was diagnosed as retroperitoneal cyst. Exploratory laparotomy was performed. A large mass was resected out measuring 20x 12.5 cms from the lesser sac (Figure 2).

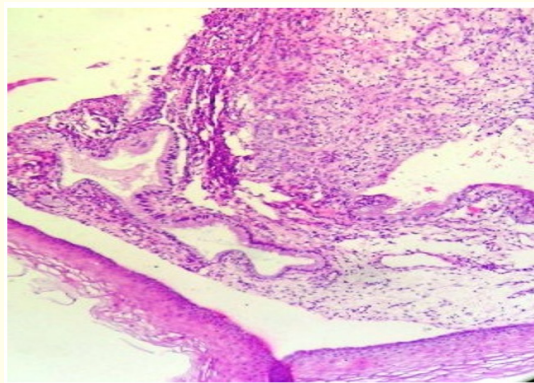


**Figure 2:** Resected specimen of teratoma.

Splenic artery was adhered to the tumor and tumor was adhered to posterior wall of abdomen. On gross examination attached tooth was identified and benign nature was confirmed on histopathological examination (Figure 3,4).



**Figure 3:** Gross appearance of teratoma with tooth attached on internal surface.



**Figure 4:** Microscopic examination showing stratified squamous epithelium with glandular component (H&E stained sections 40X).

### Discussion

Teratomas in general are the most common type of germ cell tumors (GCTs) with majority of benign lesions. Usually, teratomas arise from uncontrolled proliferation of pluripotent cells, germ cells and embryonal cells. According to the location of tumor, teratomas can be classified into gonadal and extragonadal. Extragonadal teratomas are only 1-5% of total cases. The distribution of teratomas with descending order varies from ovaries, testes, anterior mediastinum to retroperitoneum, presacral and coccygeal areas, pineal and other intracranial sites and neck [3]. The retroperitoneal GCTs are usually seen in infants and children with few cases reported in adults [2,4,5] Majority of retroperitoneal teratomas are secondary in nature and mostly occur in males. Primary retroperitoneal teratomas are rare, accounting for approximately 1–11% of all primary retroperitoneal masses. In addition, the incidence of primary retroperitoneal teratomas in females is twice than that in males, with left side preponderance [2,6,7].

These tumors are mostly asymptomatic and diagnosed on imaging studies primarily. However, mainstay of diagnosis and treatment of benign teratoma remains surgical excision only [1,8]. Prognosis is fortunately excellent after complete surgical excision with nearly 100% predicted 5-year survival rate. Histologically benign teratomas show 3-6% incidence of malignant transformation into non germ cell tumors like carcinomas and sarcomas. A definitive diagnosis of mature (benign) teratoma and completion of resectability depends upon a thorough histopathological evaluation [2].

Keeping in view the 3-6% risk of malignant transformation, it requires complete and careful histopathological examination to rule out the single focus of immature tissue [9].

### Conclusion

Retroperitoneal teratoma is a relatively rare germ cell tumor in adults. Considering the diagnostic difficulty of retroperitoneal teratoma by radiological imaging, complete surgical resection is the

treatment of choice. And detailed histopathological examination is the key part of management.

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