

A CASE REPORT OF PRIMARY RETROPERITONEAL TERATOMA IN A CHILD WITH REVIEW OF LITERATURE

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ABSTRACT

Introduction: Teratomas belong to a class of tumors known as nonseminomatous germ cell tumors occurring in a decreasing order of frequency in ovary, testis, mediastinum and retroperitoneum. We present a case of primary retroperitoneal teratoma occurring in a child of 1 year 8 months which was successfully resected along with review of literature.

Case report: A 1 year 8 month old boy male presented to the pediatric surgery OPD with a lump in the abdomen. The patient was operated upon by the pediatric surgeon and specimen was sent for histopathological examination. On gross examination, a soft tissue specimen measuring 17x12x5cms was noted which was multicystic, grayish-white in colour. Upon cut section, the specimen was multiloculated with solid and cystic parts. The cysts contained sebaceous material. There was also presence of hair arising from within the solid and the cystic parts. On microscopic examination different areas showed presence of a normal looking stratified squamous epithelium mostly and pseudostratified ciliated columnar epithelium at a few places. The subepithelium contained a few clusters of acinar looking glandular structures along with presence of mature looking sebaceous glands, hair follicles. Immature neuroectodermal components were not seen. The picture was consistent with mature cystic teratoma.

Conclusion: Retroperitoneal teratomas are uncommon tumors and mostly benign. The most important factor in the treatment of these tumors is complete surgical resection of the tumor which offers an excellent prognosis.

KEYWORDS: Teratoma, retroperitoneal, mature cystic.

INTRODUCTION

Teratomas belong to a class of tumors known as nonseminomatous germ cell tumor,^[1] and are typically classified into three general categories: mature (cystic/solid, benign), immature (malignant), and monodermal (highly specialized).^[2] The common sites of occurrences for teratomas in decreasing order of frequency are ovary, testis, mediastinum and retroperitoneum.^[3] Extragonadal primary teratomas are usually seen in infants and children and rarely in adults.^[4] They comprise of about 5% of teratomas occurring in childhood.^[5]

We present a case of primary retroperitoneal teratoma occurring in a child of 1 year 8 months which was successfully resected along with review of literature.

CASE REPORT

A 1 year 8 month old boy male presented to the paediatric surgery OPD with a lump in the abdomen. His parents gave a history of lump in back from 3 months of

age. On examination, a mass was noted on the left side of the abdomen which was immobile, non tender. No other anomalies were apparent.

Ultrasonography revealed a retroperitoneal mass in the left side of the abdomen with cystic areas and some calcification.

The patient was operated upon by the paediatric surgeon and specimen was sent to the department of pathology for histopathological examination.

Upon gross examination, a soft tissue specimen measuring 17x12x5 cms was noted. The specimen was multicystic, grayish white in colour (Fig. 1). Upon cut section, the specimen was multiloculated with solid and cystic parts. The cysts contained sebaceous material. There was also presence of hair arising from within the solid and the cystic parts.

Sections from different areas of the specimen were taken and the tissue was processed and sectioned and stained

with hematoxylin and eosin stain.

On microscopic examination it was seen that the different areas showed presence of a normal looking stratified squamous epithelium mostly and pseudostratified ciliated columnar epithelium at a few

places. The subepithelium contained a few clusters of acinar looking glandular structures along with presence of mature looking sebaceous glands, hair follicles. Immature neuroectodermal components were not seen. The picture was consistent with mature cystic teratoma (Fig. 2 a, b, c, d).



Fig. 1: Showing gross appearance of the tumour with solid and cystic areas.

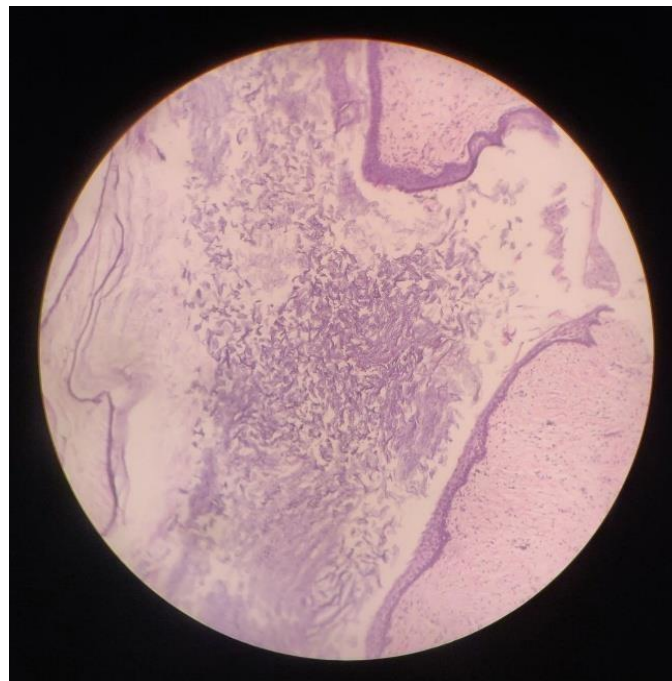


Fig. 2a: Showing cystic area lined by stratified squamous epithelium with sebaceous material (10X).

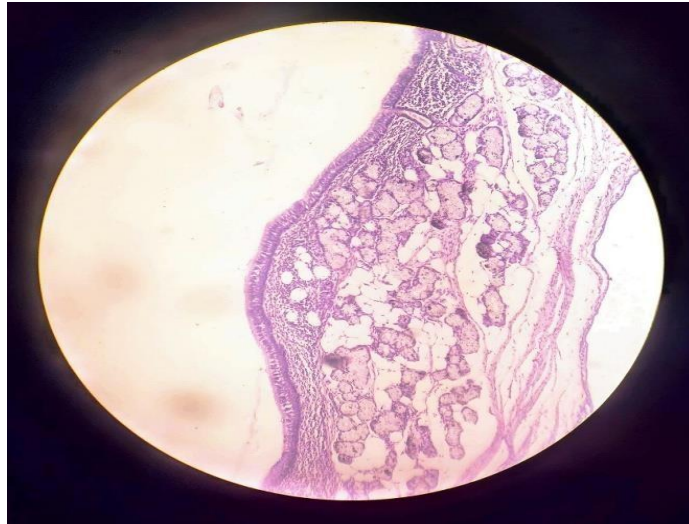


Fig. 2b: Showing a columnar lining with adipose tissue, glands (10X).

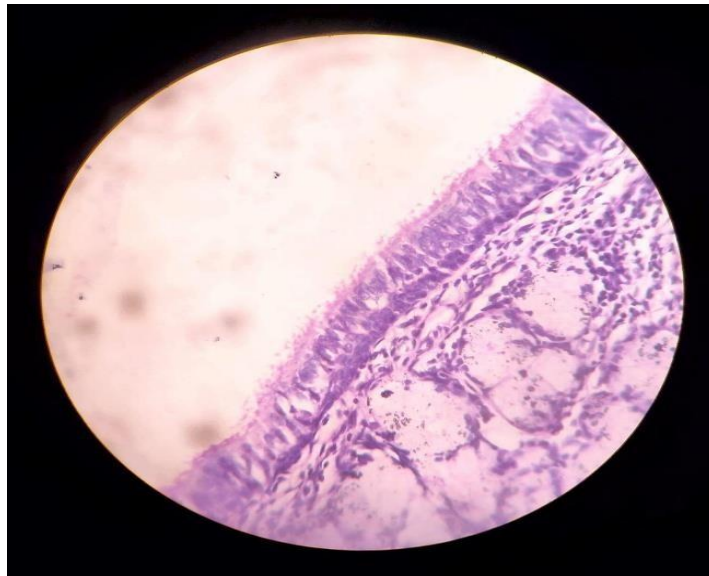


Fig. 2c: Showing pseudostratified columnar epithelium (40X).

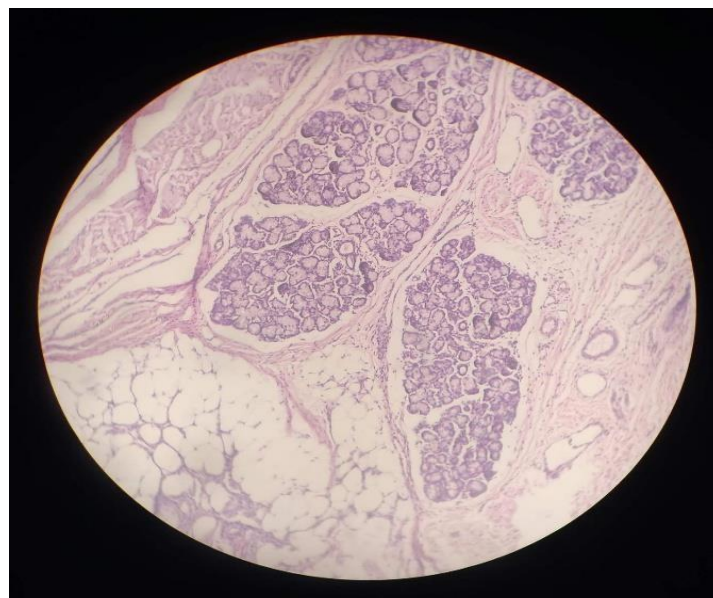


Fig. 2d: Showing another area with seromucinous glands (10X).

DISCUSSION

Teratomas are congenital tumors comprising of tissues arising from pluripotent embryonic cells,^[6] and contain derivatives of ectoderm, endoderm and mesoderm. Usually seen to occur in the gonad, they may sometimes be seen in extragonadal locations including the sacrococcygeal region, mediastinum, neck and retroperitoneum.^[7] Among retroperitoneal teratomas, over one-half occur in the paediatric age group of which 90% are benign.^[8] These tumors usually show a female preponderance. However, in our case, the patient was a male child presenting with mass in the abdomen. Although the patient came to us at 1 year 8 months of age, the mass had been present since infancy from around three months of age.

These tumours are usually asymptomatic but they may present with abdominal distension and mass in the abdomen. The diagnosis of retroperitoneal teratoma often can be suggested on the basis of radiologic imaging. These tumors may be predominantly cystic or completely solid in appearance. A computed tomography (CT) scan or magnetic resonance image (MRI) can identify different components of these tumors such as bone, soft-tissue density structures adipose tissue, and sebaceous and serous-type fluids. Even a plain radiograph may be helpful as the presence of bones or teeth on radiograph was also considered most helpful for the diagnosis of teratomas by Lack *et al.*^[9]

Grossly, these tumours may be cystic or solid. Cystic teratomas are generally benign in nature. Teratomas which are solid and contain immature embryonic tissue are more likely to be malignant.^[10] Our tumour was both solid and cystic with cystic areas containing sebaceous material.

Surgical resection remains the mainstay of therapy for mature teratomas and is also required for definitive diagnosis by histopathological examination.^[11]

CONCLUSION

Retroperitoneal teratomas are uncommon tumors and mostly benign. The most important factor in the treatment of these tumors is complete surgical resection of the tumor which offers an excellent prognosis.

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