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Retroperitoneal Teratoma in A 11/2 Month Old Infant: An Unusual Presentation.

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Abstract: *Retroperitoneal teratoma in infancy is exceedingly rare. Progressive enlargement of th abdomen and presence of intra-abdominal mass is the most common clinical feature.they constitute third most frequent type of retroperitoneal neoplasm seen in infant and children after wilm's tumor and nephroblastoma. We report here a case of giant retroperitoneal teratoma in an infant.a 1 ½ month old male child was admitted with complaint of abdominal distension. Haematalogical Investigation and serum alpha protein assay were done to obtain preoperative values. Serum alpha feto protein levels were elevated. Abdominal ct scan revealed a variegated tumor with solid and cystic areas compressing the left kidney.*
Patient was operated with a supraumbilical transverse trans peritoneal approach.Post-operative period was uneventful. Histological report revealed that excised abdominal lump shows features of benign teratoma though the presentation was sudden in onset with a very short history.

Keyword: *Mass, Retroperitoneal, Alpha feto protein*

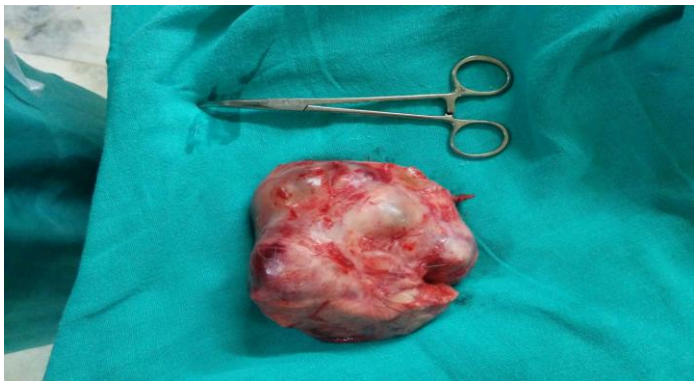
I. Introduction

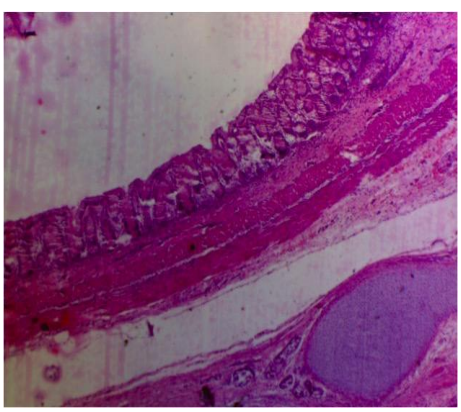
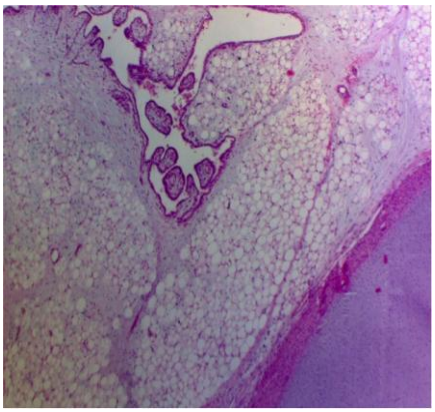
Dermoid cyst are congenital tumours consisting of derivatives from the ectoderm, endoderm and mesoderm germ cell layer.A teratoma is considered to be non-seminomatous .Germ cell tumour and is typically located in either the sacrococygeal region or in gonads.

Retroperitoneal teratomas are commonly identified in early childhood.Retroperitoneal teratomas are uncommon germ cell tumors in children.They present mainly as an abdominal mass with few other symptoms. Majority of the tumors are benign, situated on the left side and para renal in location; occasional lesions are bilateral. If diagnosed early, they are amenable to curative excision.

II. Case Report

A 1 1/2 month child with abdominal distension, passing faeces and flatus came to the opd. Patient was admitted and investigated. Preoperative evaluation included plain x-ray, abdominal ultrasound and contrast enhanced ct scan to delineate the nature and extent of the tumour. Haematalogical Investigation and serum alpha protein assay were done to obtain preoperative values.Operation Was through a trans peritoneal approach.Intra operatively pancreas and splenic vein was displaced superiorly and colon was displaced anteriorly.Retroperitoneal growth was found posterior to descending colon and anterior to lt kidney.Excised growth was 286 gm and 12 x 11 x 6 cm in size.The excised specimen was subjected to detailed histological examination to detect malignantelement.



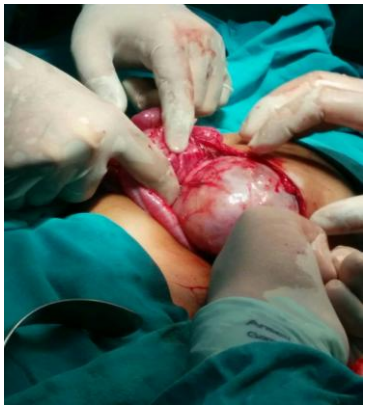



III. Discussion

Retroperitoneal teratomas comprise 3.5 – 4% of all germ cell tumors in children.[1] Patients present with abdominal distension or a palpable mass. Occasionally, the tumor is present antenatally and diagnosed at birth,[2] these neonatal teratomas have a higher incidence of malignancy than those in older children[2]. The tumors in this study was left-sided in a male child ; literature does not reveal a side or gender predilection and almost equal incidence in males and females have been reported.[1] The patient in the present study had a mature benign tumor. Some of the reports on retroperitoneal teratoma highlight a diagnostic dilemma for these lesions.[3,4] In the present series the diagnostic algorithm was palpation of a solid flank mass, plain X-ray to demonstrate calcification or formed bony components like teeth and phalanges (which are pathognomonic). If these were present on X ray, ultrasound was sufficient to define the relationships of the tumor for planning surgery. If formed bony components were not visualised, CT scan was used to define the extent of the disease. Schey and Vesley[5] have recommended only a plain abdominal X-ray and excision of the tumor if the characteristic calcification is demonstrated. Lack and Travis[6] have also reported that the presence of bones or teeth on an X-ray was the most helpful in establishing a preoperative diagnosis. The authors suggest that CT scan is useful to delineate the extent of the disease in lesions occupying both sides of the retroperitoneum and those tumors where calcification is not seen on plain X-ray. However, it was seen in some of the patients under evaluation that the degree of tumor adherence to the adjacent structures suggested by CT was more than that found on exploration. CT findings should not therefore prevent surgical exploration of the tumor; even bilateral lesions are amenable to complete removal. Hayasaka and Yamada[7] have reported internal homogeneity, fat density, cyst formation and calcification to be important predictors of a benign retroperitoneal tumor on CT. Papanicolau and Y oder[4] advocate angiography , inferior venacavography and needle biopsy for the accurate diagnosis of these tumors, which were not done in the present study. Serum alpha-fetoprotein was elevated preoperatively in six of the patients, it returned to normal after operation and formed a useful marker of monitoring recurrence. All reports agree that complete excision of the teratoma offers the best chance of cure.[3]

Malignancy is uncommon in retroperitoneal teratomas except endodermal sinus tumors and hence non-mutilating excision is possible and should be attempted even in lesions involving both sides of the abdomen. The most important aspect of the excision is to remember the close relationship of these tumors with the kidneys. The renal vessels are invariably stretched out over the lesion, with care however, they can be separated from the teratoma. Removal of the kidney was not necessitated in any of the patients.

Benign retroperitoneal teratomas are cured by complete removal. Lack and Travis[6] have reported guarded prognosis for unresectable lesions, immature teratomas and endodermal sinus tumors. Aggressive chemotherapy has been advocated for the latter lesions, which have a propensity for metastasis. Tapper and Lack[8] reported that the single most important factor in prognosis was complete removal, no patient who did not undergo surgery or in whom only partial resection was possible, survived irrespective of the treatment used.

IV. Conclusion

Retroperitoneal teratomas are uncommon tumors in children and majority of the lesions are benign. X-ray findings of calcification/ bone/ teeth are pathognomonic. Ultrasonography and CT scan are useful to delineate the extent of the tumor. Despite extensive local spread, the lesions are amenable to curative surgical excision. Recurrence can be monitored with tumor markers like serum alpha-fetoprotein.

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