

CASE REPORT



 OPEN ACCESS

Received: 09.07.2021

Accepted: 20.07.2021

Published: 25.07.2021

Citation: Jambagi A, Nandyal SS, Ramu R, Narayana Murthy C. (2021). Infantile pure yolk sac tumor of testis - A case report. International Journal of Preclinical & Clinical Research. 2(2): 48-50. <https://doi.org/10.51131/IJPCCR/v2i2.17>

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Funding: None

Competing Interests: None

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Published By Basaveshwara Medical College & Hospital, Chitradurga, Karnataka

ISSN

Print: XXXX-XXXX

Electronic: XXXX-XXXX

Infantile pure yolk sac tumor of testis - A case report

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Abstract

Intra-abdominal testicular tumors are uncommon in prepubertal children. The present study is a rare case of intra-abdominal testicular yolk sac tumor with elevated Alpha fetoprotein levels whose diagnosis was confirmed by histopathology and immunohistochemistry. Serum tumor markers and radiological examination also aids towards the diagnosis of nonpalpable undescended testis.

Keywords: Undescended testis; Tumor markers

Introduction

Testicular tumors are extremely uncommon in paediatric group, forming 1 to 2% of all solid childhood tumors⁽¹⁾. Pure yolk sac tumor is almost always seen in infants and young children, representing 70% of paediatric germ cell tumors⁽²⁾.

Case Report

A two-year-old child presented as a painless testicular mass. HRUSG of scrotum revealed an enlarged, globular right testis with multiple cystic spaces without calcification and minimal free fluid in right hemi scrotum. Color Doppler showed increased vascularity. Chest x-ray was normal. Serum AFP was elevated. Provisional diagnosis of germ cell tumor was made. Right orchidectomy was done. Grossly tumor was homogenous,

gray white measuring 4x3x3 cm. Cut section was solid and gray white (Figure 1).

Imprint was taken & smears studied were cellular, consisting of tumor cells arranged in large sheets & microcystic pattern. These cells were round in shape with indistinct cell membrane, moderate amount of cytoplasm and central round to oval nuclei. Nucleus showed anisonucleosis & few nuclei showed prominent nucleoli. Occasional mitosis was seen (Figure 2).

Cytologically features were suggestive of germ cell tumor. Microscopy showed a tumor tissue arranged in microcystic sheets and solid pattern. Individual cells were round to oval with vesicular nucleus, irregularly distributed chromatin and moderate amount of cytoplasm. Areas of necrosis were seen. Special stain PAS was performed and found to be positive (Figure 3).



Fig 1. Gross specimen-Yolk sac tumor of testis

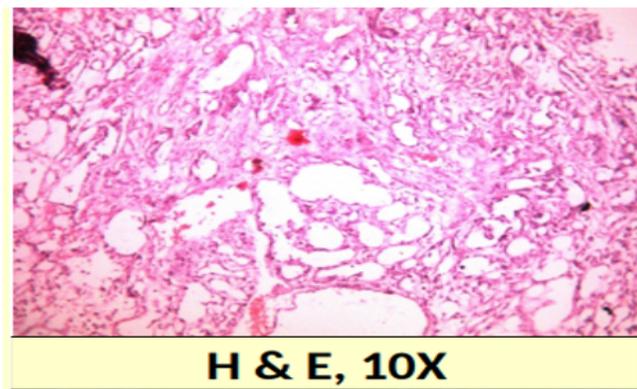


Fig 2. Microscopy (H&E)

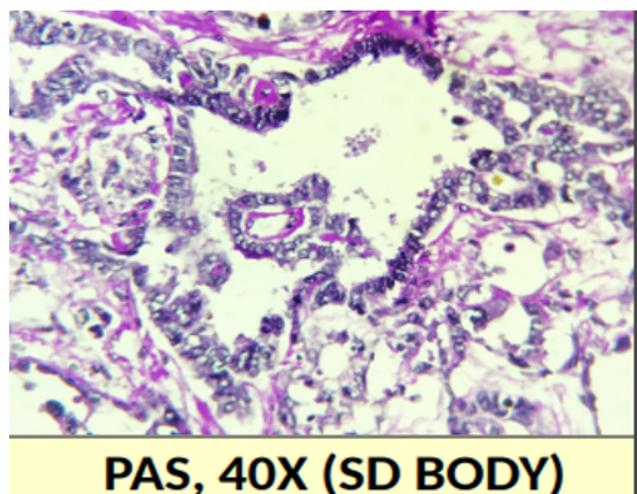


Fig 3. Special stain: Periodic acid Schiff

Diagnosis of pure yolk sac tumor of right testis was made and confirmed by IHC SALL4+ve⁽³⁾ (Figure 4). This case is presented for its rarity and complete diagnostic workup.

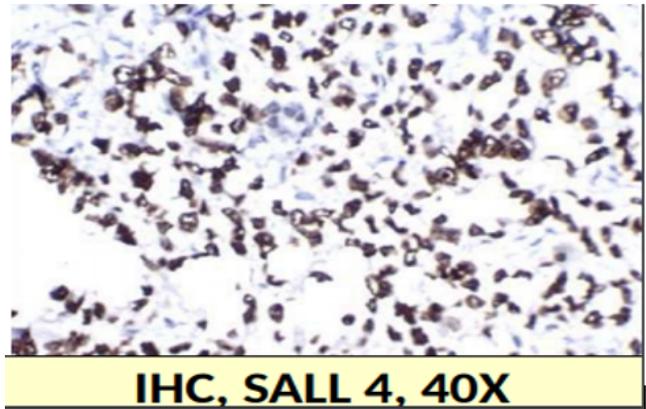


Fig 4. Immunohistochemistry: SALL 4

Discussion

Yolk sac tumor is rare tumor of childhood, which accounts for ~ 3-5% of all childhood cancers (< 15 years) and usually arises in gonads, testis or ovary. It has been suggested that alpha feto protein can be applied as a feasible tumor marker because its level is elevated in > 90% of yolk sac tumor. Testicular tumors in intraabdominal sites can present either as asymptomatic testicular mass detected during evaluation of nonpalpable undescended testis or with symptoms like abdominal pain or lump associated with nausea, vomiting, low grade fever or intraabdominal testicular tumors⁽⁴⁾.

Conclusion

In a child with non-palpable undescended testis presenting with abdominal lump, pain possibility of intraabdominal testicular tumor should always be considered. Tumor markers can help in evaluation. Early ultrasound or CECT scan helps in early detection and diagnosis of an intraabdominal testicular tumor that can aid in planning of treatment for favourable outcome.

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