

Juvenile Granulosa Cell Tumor - A Rare Neoplasm in Newborns

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Introduction

Juvenile granulosa cell tumor of the testis (JGCT) is a rare tumor although it is the one of the most common neoplasms of the infantile testis [1]. We here present an additional case of 5 months-old male with JGCT of testis.

Case

At physical examination revealed a hard, mobile and painless mass suspicious for malignancy in his right testis. Serum AFP levels are within normal limits. Testicular ultrasonography revealed a right testicular mass of 1.7 × 1.1 cm diameters and regular lobulated borders.

After orchiectomy, the gross examination revealed a 2.8 × 1.8 × 1.5 cm testis with a white-grey, glistening lesion. It had an uninterrupted capsule which separated the mass from normal testis parenchyma (Figure 1). Microscopically, the tumor was composed of a prominent solid pattern with few cystic follicles (Figure 2).

The follicles were lined by several cell layers; the inner cells having oval or round nuclei and eosinophilic cytoplasm whereas the outer had with spindle nuclei and scanty cytoplasm (Figure 3). A high mitotic rate was observed (Figure 4).

Immunohistochemical stains were positive for inhibin, alpha-1 antitrypsin, CD99 and were negative for AFP in tumor cells (Figure 5). Also, Ki 67 immunostaining of tumor with a high proliferative rate (Figure 5). The tumor was diagnosed as juvenile granulosa cell tumor of the testis.

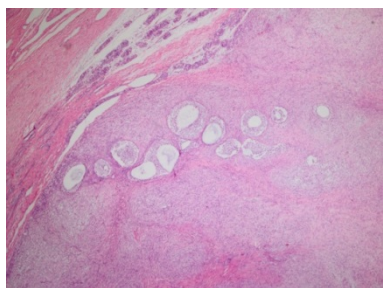


Figure 1: Tumor had an uninterrupted capsule which separated the mass from normal testis parenchyma (H&E x40).

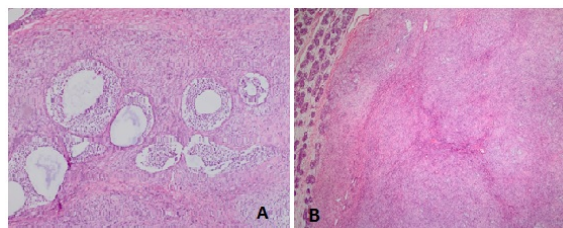


Figure 2: The tumor was composed of a prominent solid pattern with few cystic follicles (H&E x40) (H&E x100).

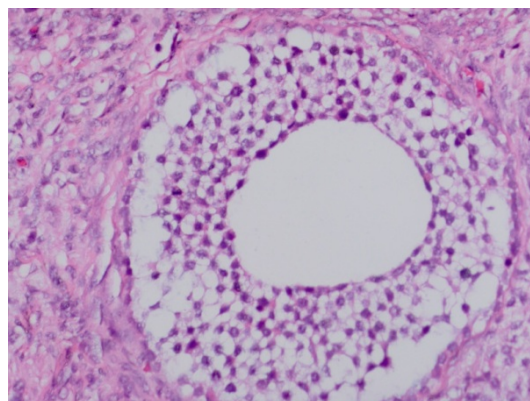


Figure 3: The view of follicles showing outer and inner cell layers (H&E x400).

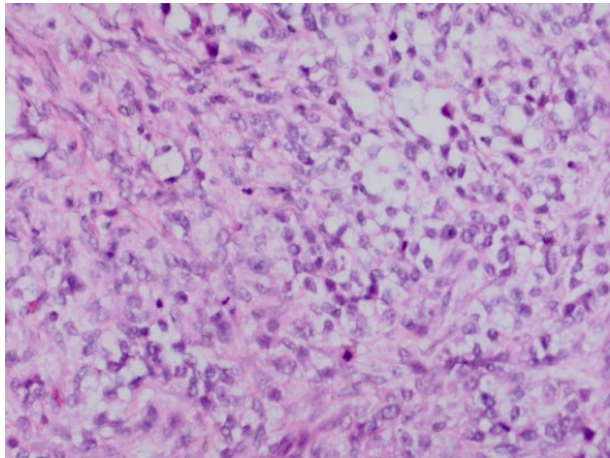


Figure 4: The tumor cells have high mitotic rate (H&E x400).

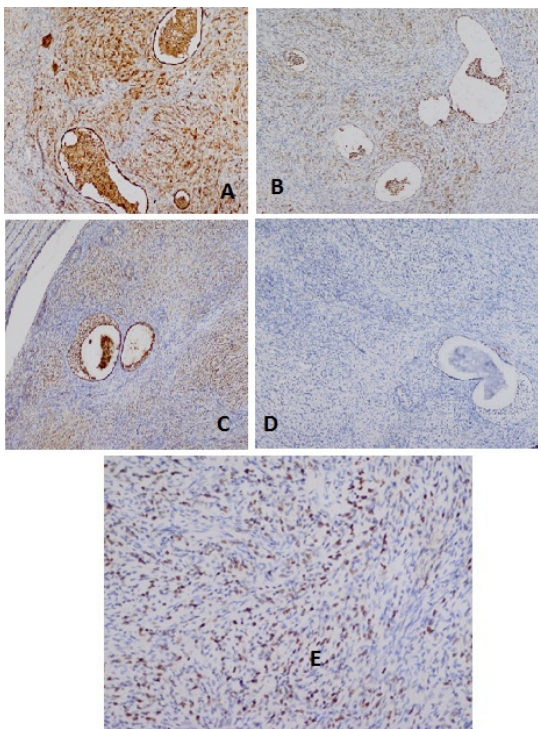


Figure 5: Immunohistochemical stains for various proteins within the tumors and their expression (A: Inhibin, B: Alpha-1 Antitrypsin, C: CD99, D: AFP, E: Ki-67, respectively).

References

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