

Background:

Leydig cell tumor (LCT) is a rare testicular tumor developing from male gonadal interstitium and most common type of testicular sex cord-stromal tumor. Its incidence is about 1%-3% of all testicular neoplasms. In children only few cases had been reported and are associated with pseudo puberty.

Case report:

We report a case of a **4 years old** boy admitted to our unit for management of **precocious puberty** which started one year ago with increase in penis length and pubic hair .

At four years his height was **130cm (+3SDS)** ,weight **28 Kg (+3SDS)** ,he has no dysmorphic face, acne and hoarse voice.

Genital examination found a **G3P2 Tanner** stage with right testis volume of **6cc** and left of **3cc**.

Hormonal assay showed luteinizing hormone (LH) levels at **0, 5 U/l**; normal human chorionic gonadotropin level **<1 m IU/ml**; alpha-fetoprotein (AFP) level at **0.76 IU/ml**; serum testosterone at **1.9 ng/ml**; 17OHP at **1,04ng/ml**. TSH at **2,4μUI/ml**, FT4 at **12 pg/ml** .

Testicular ultrasound found an hypo echogenic lesion of **12,5x6 mm** in the right testis with irregular limits .

MIR confirm the nodule of **15x6mm** which appear in isosinal T2 and enhanced gadolinium .

The patient underwent right orchiectomy

Histological section show polygonal cells with abundant eosinophilic cytoplasm and prominent nucleoli arranged in sheets and nodular pattern corresponding to LCT.

Bibliography:

- 1-A.Abioso et al .Histamine H4 receptor as a novel therapeutic target for the treatment of Leydig-cell tumours in prepubertal boys. European Journal of Cancer 91 (2018) 125e135M
- 2-Mukhopadhyay et al. Leydig Cell Tumor of Testis in a Child: An Uncommon Presentation July 2017 Journal of Indian Association of Pediatric Surgeons 22(3):181



Figure 1:Genital aspect



Figure 2 : increase testicular volume



Figure 3:Testicular ultasound Imaging

Follow up:

One and three months later ,we note the persistence of signs of precocious puberty with morning erection and increase of **left testis volume to 6cc** .LH level was **2,58 U/L** and **testosterone 2,85ng/ml** confirming **central puberty** .Hypothalamic-pituitary MIR was normal .Precocious puberty with” priming phenomena” due to long term testosterone secretion by the LCT has been evoked .The patients was treated with **LH-RH analogues** (TRIPTORELINE 3,75mg) every 28 days which induce good evolution with decrease of testicular volume and testosterone levels (**0,12ng/ml**).

Conclusion:

This case report a rare testicular tumor (LCT) revealed by precocious pseudo puberty followed by **central puberty with priming phenomena** .This underlines the interest of a rigorous follow-up after tumor resection.