CHAPTER 22

TESTICULAR TUMOR IN CHILDREN

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While testicular tumors constitute approximately 1.2% of pediatric solid tumors, the characteristics and management of these tumors vary according to the patient's age and clinical and laboratory characteristics. While testicular cancer peaks in the 50s in men, the second peak is in adolescence-early adulthood, and the third smallest peak is younger than 2 years old. In testicular tumors in children, 11 years of age is generally used as a guide to determine puberty for histological features, pathogenesis, disease management and outcomes. While most prepubertal testicular tumors are benign (70-75%), after puberty, 75% of tumors are malignant.

The World Health Organization (WHO) made a new classification for testicular germ cell cancers in 2016 and divided them into two main groups, originating from germ cell neoplasia in situ (GCNIS derived) and non-GCNIS derived. Tumors originating from GCNIS are usually post-pubertal tumors (Mixed Malignant germ cell – Embryonal – Teratoma), while those originating from non-GCNIS are prepubertal neoplasm (Yolk sac – Teratoma – Mixed teratoma & yolk sac – Epidermoid). Other type of testicular stromal tumors (TSTs) include Leydig cell, Sertoli cell, and juvenile granulosa cell tumors. TSTs account for

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multidisciplinary team of surgeons and oncologists is required to achieve optimal outcomes in patients with testicular cancer.

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