Paratesticular tumors

Definition
- Intrascrotal mass without testicular origin: this includes the spermatic cord (90% of paratesticular tumors), testicular tunics, epididymis, and appendices.

Malignant tumors
- Rhabdomyosarcoma (RMS): the most frequent. Appears at an early age. The embryonal type has a good prognosis; alveolar, pleomorphic, and mixed tumors have a poor prognosis.
- Leiomyosarcoma: also common, but occurs at older ages. Prognosis depends on the degree of differentiation.
- Other sarcomas: liposarcoma, fibrosarcoma, malignant fibrous histiocytoma, desmoplastic round cell tumor.
- Malignant vaginal mesothelioma: related to asbestos exposure. It usually appears as a recurrent hydrocele. Local hydrocele resection leads to more recurrences than radical orchietomy. Very aggressive, with a poor prognosis.
- Ovarian epithelial tumor (Müllerian): serous or mucinous, located in the epididymis.
- Primary malignant lymphoma: very rare and aggressive.
- Adenocarcinoma of the epididymis: extremely rare, with only 23 cases in the literature.

Benign tumors (more frequent)
- Lipomas, leiomyomas, and adenomatoid tumors: the most common. Adenomatoid tumors are usually at the head of the epididymis.
- Well-differentiated papillary mesothelioma: associated with hydroceles. Not related to asbestos. May be difficult to distinguish histologically from a malignant mesothelioma.
- Angiomyxoma: locally aggressive, but not metastasizing. Recurs in 20% after surgery.
- Angiomyofibroblastoma: benign, but can undergo sarcomatous transformation.

Symptoms
- Extratesticular scrotal mass, almost always painless, but sometimes painful.
- Secondary hydrocele, occasionally.

Diagnosis
- Physical examination: palpable mass in the structures adjacent to the testes.
- Scrotal ultrasound: locates the lesion and defines its structure. Benign tumors are usually homogeneous and hyperechoic; malignancies are homogeneously hypoechoic or heterogeneous.
- CT/MRI: allow the characterization of the lesion and detect its possible spread.

Treatment
- Observation: for masses considered to be benign, small, and asymptomatic.
- Inguinal surgical exploration: if the intraoperative biopsy indicates a malignant lesion, a radical orchiectomy should be performed en bloc with the tumor and with high ligation of the spermatic cord. Some authors recommend hemiscrotectomy and inguinal lymphadenectomy.
- Adjuvant radiotherapy/chemotherapy: in advanced cases.