

Case #3

Case S04-0222-A3

Tissue from a three-year-old, Arabian stallion presented for castration due to right side cryptorchidism. At surgery, the right testicle was too large to pass through the inguinal ring and a paramedian incision was necessary for removal of the retained testis. Only the right testicle was available for examination.

The right testicle was 13cm long and 11cm in diameter. On section, a multilobulated, grey mass with an irregular, firm fibrous stroma replaced most testicular parenchyma. Some areas were soft, white, and gritty (necrosis with dystrophic mineralization).

Description:

Testicle: Abnormal parenchyma is reduced to a line of Sertoli-only, lined seminiferous tubules and scattered, festooning rings of efferent ductules. The majority of the section consists of a papillary and tubular and slightly cystic proliferation of a cuboidal epithelium. The neoplastic cells have an oval, hyperchromatic nucleus with coarse chromatin and an amphiphilic to eosinophilic cytoplasm. A fibrous stroma variably subtends the mass. In areas, the neoplasm is compressed and solid. The mitotic index is low. Some tubular profiles contain a grey, PAS positive and acid Alcian blue positive matrix.

Morphologic Diagnosis: Papillary rete adenocarcinoma.

Note: Vimentin stains the stroma nicely and pancytokeratin stains the epithelium. This is the second case of this neoplasm, the first being a bilateral neoplasm in an 11-year-old dog (Vet Pathol 41:75-78, 2004). It is an uncommon neoplasm of humans. A testicular adenocarcinoma has been reported in a Merino ram (Vet Pathol 17:391-393, 1980), that maybe was a third case. The neoplasm has been reported in rats exposed to cadmium chloride and mice whose dams were exposed to diethylstilbestrol. At five months post surgery, the gelding is clinically normal. In humans, it is reported mostly in the third to sixth decade of life. A promotion of this neoplasm because of its anatomic location is speculated, although it is not reported in cryptorchidism (Tumors of the Male Genital System, AFIP Atlas of Tumor Pathology, 1987).