

Reproductive System – 3

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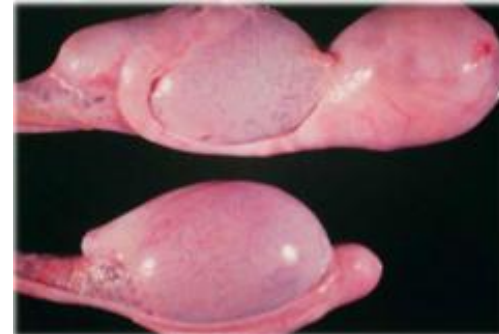
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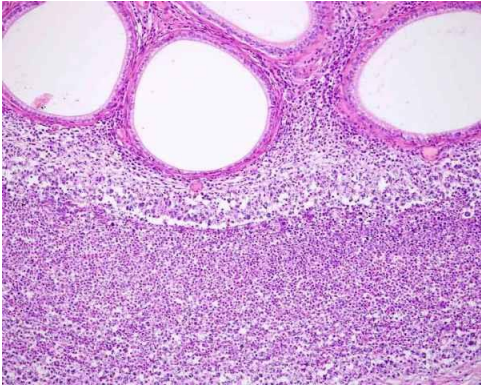
• Epididymitis

- *Inflammation of epididymis*
- *More often infectious*
- Macroscopically, an increased epididymal size and dissymmetry
- Fibrinous and then fibrous adhesions may be present between affected epididymis and adjacent tunics.
- Consistency will depend on duration of inflammation and the development of sperm granulomas.
- In chronic epididymitis, the marked increase in fibrous tissue results in atrophy of epithelial elements and the epididymis becomes hard and nodular

- **Histologically**, affected epididymal ducts contain fibrin, neutrophils, and spermatozoa in various stages of disintegration, damaged epithelium, macrophages, and multinucleate giant cells,
- Other features of sperm granuloma, with prominent interstitial accumulation of lymphocytes and plasma cells, become apparent
- Epithelial hyperplasia may be observed
- In chronic epididymitis, **squamous metaplasia** of epithelium may also occur



<http://i.kinja-img.com/gawker-media/image/upload/s--wIMEUG7Q--/19ba9y8js81zvjpg.jpg>



http://www.uoguelph.ca/~rfoster/repropath/male/Male_canine/M%20can%20epi%20epididymitis%20YB057256%2002wl.jpg

Neoplasms of Testes

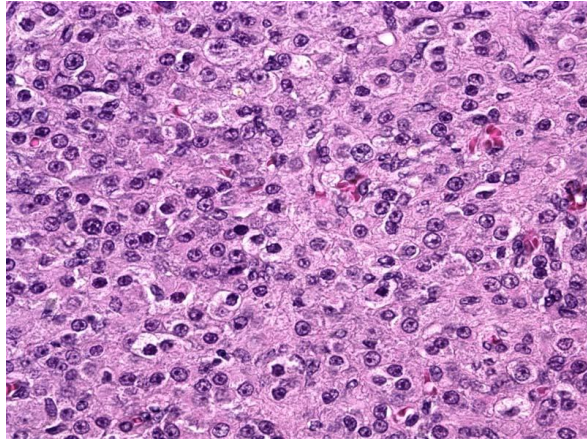
Interstitial (Leydig) cell tumor

- *Interstitial cell tumors are derived from the endocrine cells of the testicular interstitium.*
- it is found in the **older age**
- Normal interstitial endocrine cells produce **androgens**, and some interstitial cell tumors of dogs have been shown to produce excess androgen, but *most tumors do not*
- Interstitial cell tumors in the dog are often **multiple**, but may be solitary and unilateral or bilateral
- Commonly they are from 1 mm to 2 cm or more;
- They normally **bulge** from the surface
- On cut surface, the tumors are well demarcated but only lightly encapsulated, **spheroidal**, and **yellow**.

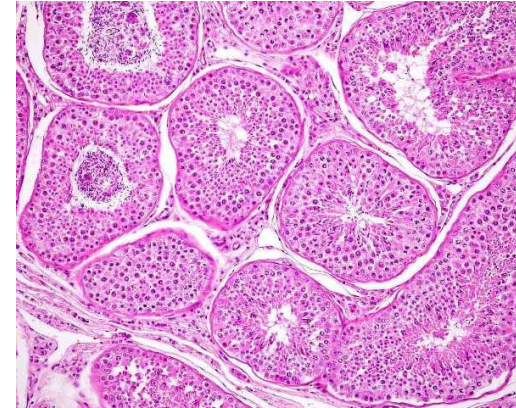
- The tumor is predisposed to **hemorrhage** which causes dark discoloration,
- Even a large tumor may be obviously composed of confluent nodules
- The consistency is **soft**, there being little stroma, and the cut surface is slightly **greasy**.
- Interstitial cell tumors grow slowly and expansively with surrounding compression **atrophy**
- They are **not notably invasive**.
- In bulls, **semen production** and **fertility** may be reduced.
- The **cells** are **round** or **polyhedral** in shape
- The **stroma is scant**



http://research.vet.upenn.edu/Portals/61/Gallery/Album/56/interstitial_cell_tumor.jpg



<http://medicalpicturesinfo.com/wp-content/uploads/2011/09/Leydig-cell-2.jpg>



Normal Testis

http://www.uoguelph.ca/~rfoster/reproath/male/Male_canine/M%20can%20testis%20NAD%20YB167055%2001wl.jpg

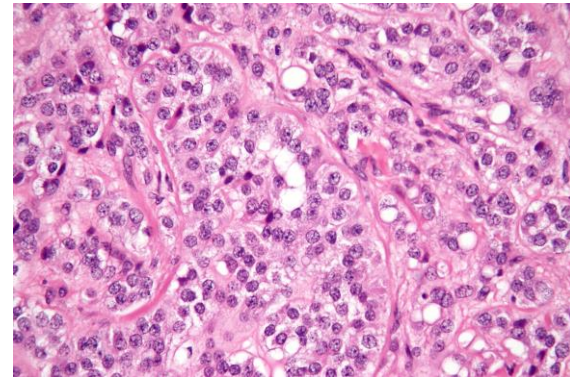
Sertoli cell tumor

- *The Sertoli cell tumor is rare* but has been observed in the dog, bull, horse, ram, and cat.
- These tumors often cause enlargement of the affected testis, and there is, sometimes, the development of a *feminization syndrome* in the host.
- The feminizing effect of these tumors is due to either their high content of *estrogen*
- hyperestrogenism syndrome is manifest as reduction of *libido*, female distribution of *body fat*, cutaneous atrophy leading to symmetrical alopecia, *atrophy of testes* and penis, *mammary development*, etc.

- The gross appearance, larger tumors are somewhat *irregularly ovoid*, lobulated and enclosed in a tense tunica albuginea
- The cut surface *bulges* and usually is white and *quite hard*
- The *firmness of the tumor is due to the abundance of its stroma*,
- Histologically, Sertoli cell tumors may be of two types, either *intratubular* or *diffuse*.
- Stroma is always plentiful, and it may be hyalinized.
- In the early and well-differentiated tumors, the cells resemble normal Sertoli cells, being rather *elongate* with *foamy acidophilic cytoplasm* and small, basally situated, dark staining nuclei or nuclei are no longer basally located
- *Mitoses are sparse*.
- *Lipids are demonstrable* in the neoplastic cells



<http://www.vetnext.com/fotos/F00898.jpg>



http://upload.wikimedia.org/wikipedia/commons/b/b8/Sertoli_cell_tumour_high_mag.jpg

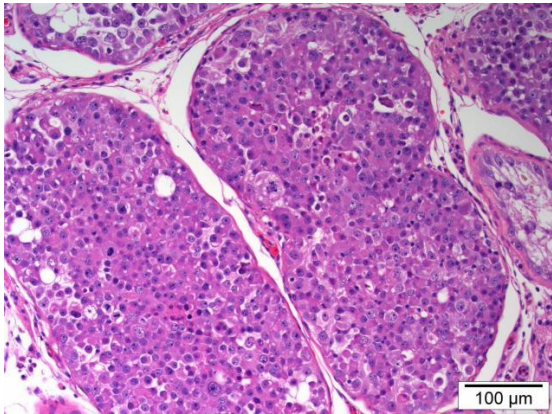
Seminoma

- Seminomas are **common in canine** testes and have also been observed in the stallion (and mule), ram, buck, and bull.
- They occur in **older animals** and are common in **cryptorchid** testes.
- They arise from cells of the spermatogenic series, presumably from basal **spermatogonia**, and they are usually **multifocal** of origin in the affected testes.
- They are **not often malignant**,
- **tend to be locally invasive**
- Seminomas often attain a size of **6 cm or more**
- sectional surface is coarsely lobulated by a few fine trabeculae, the color is usually **white or gray-white**, and the texture is **soft to moderately firm**

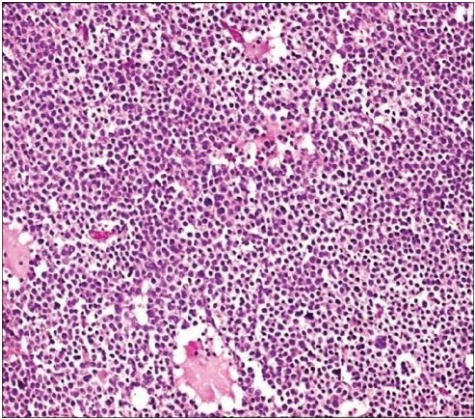
- *Microscopically, **intratubular**, and **diffuse** types are recognized.*
- The earliest **development of the tumor** is **intratubular**
- **Rupture of the tubules** soon occurs and the growth becomes confluent, forming **broad sheets** of closely packed cells with **scant supporting stroma**.
- The **cells are large** and **polyhedral** with a rim of visible cytoplasm
- **nuclei** are **large** and **rounded** and usually strongly chromatic with one or more large acidophilic nucleoli.
- it is possible to find scattered **multinucleate giant cells**
- *Focal or diffuse accumulations of **lymphocytes** occur in most seminomas*



http://www.webpathology.com/slides-13/slides/Seminoma_Gross27.jpg



<https://classconnection.s3.amazonaws.com/922/flashcards/752922/png/421320850954338.png>



http://www.cancerjournal.net/articles/2009/5/3/images/JCanResTher_2009_5_3_213_57131_u2.jpg