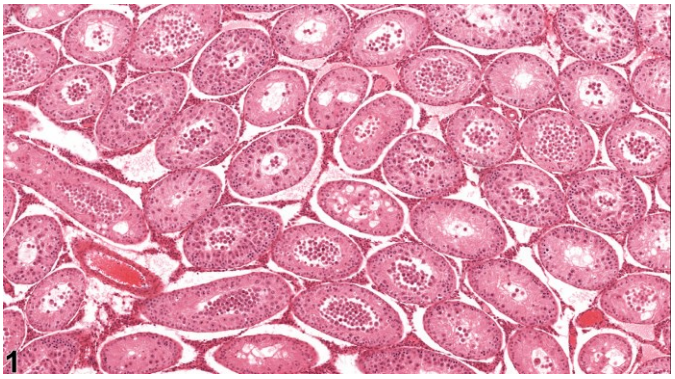
Testis, Germ cell – Exfoliation



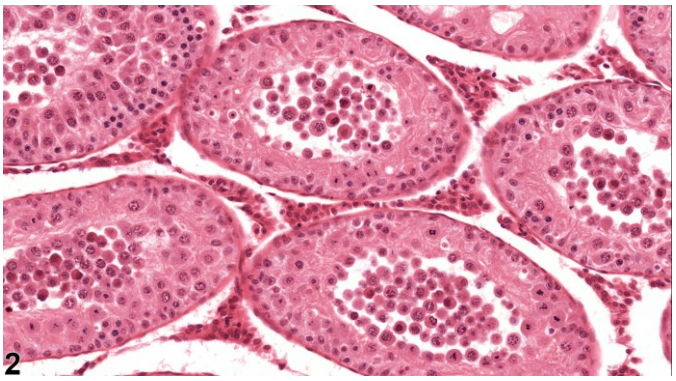
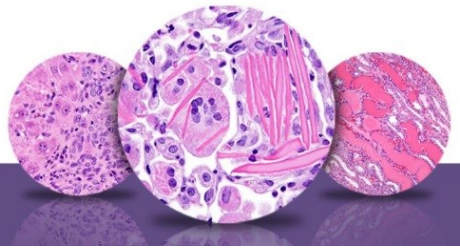


Figure Legend: Figure 1 Testis, Germ cell - Exfoliation in a male Harlan Sprague-Dawley rat. Exfoliated germ cells are present in seminiferous tubule lumens. (Photograph courtesy of Dr. D. Creasy.) **Figure 2** Testis, Germ cell - Exfoliation in a male Harlan Sprague-Dawley rat. Higher magnification of Figure 1 showing germ cells in seminiferous tubule lumens. (Photograph courtesy of Dr. D. Creasy.)

Comment: Germ cells may undergo degeneration and/or apoptosis within the seminiferous epithelium, or they may lose contact with the surrounding Sertoli cell cytoplasmic processes and be shed into the tubular lumen (Figure 1 and Figure 2). Often the exfoliated germ cells retain relatively normal morphology. The cells will rapidly be transported into the epididymis and will be present in the ductular lumens. The finding should not be confused with artifactual sloughing of germ cells caused by squeezing of the testis during necropsy dissection. In the case of sloughing due to necropsy trauma, germ cells will not be seen in the epididymis. Germ cell exfoliation has been described as a predominant finding following administration of phthalate esters and microtubule inhibitors such as colchicine and the fungicide carbendazim.

Recommendation: The term “germ cell exfoliation” should be reserved for those situations where there is extensive shedding of germ cells into the lumen as a predominant finding. In those situations, germ cell exfoliation should be diagnosed and graded and should be discussed in the pathology narrative if the incidence and/or severity appears to be related to chemical administration. Bilateral involvement should be diagnosed when present. If there is significant concurrent germ cell degeneration, that should also be diagnosed and given a severity grade.



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