Prevalence and pathologic features of rete testis cysts in alpacas (*Vicugna pacos*)
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Cystic lesions of the rete testis are relatively common in alpacas. The prevalence of these cysts in alpacas is 14.5%, based upon abattoir sampling. This study is a report of prevalence, as well as pathological features of rete testis cysts in alpacas.

Ultrasonography was performed on 173 alpacas scheduled for castration. Cystic dilation of the rete testis was measured. Following castration, rete testis fluid was aspirated and testes and epididymides were fixed and processed routinely for histopathological examination. Sections of testicular parenchyma were evaluated for spermatogenetic activity. Sections of the cauda epididymis were evaluated for presence or absence of spermatozoa.

Rete testis cysts were detected in 32 (18.5%) of the males examined. Cysts ranged from 4 mm to 45 mm (mean ± SEM; 13.3 ± 1.3) in length and from 2 mm to 28 mm (6.5±0.8) in width. The condition was bilateral in 40.6% of the affected males. If unilateral, there was no significant difference (P> 0.05) between sides of affected testicles. Small cysts (<10 mm) were located predominately in the center of the testicle, whereas larger cysts occupied the entire length of the mediastinum testis and extended in a branching manner towards the caput epididymis. Fluid aspirated from 44.4% of the cysts contained immature spermatozoa. Immature spermatozoa were obtained significantly more often (P<0.05) from larger cysts than from smaller ones.

Spermatogenic activity was in all cystic testicles. However, poor spermatogenic activity was noted in testes with larger cysts. In severe lesions, the most common findings were interstitial edema, enlarged lymphatic vessels and some degenerated tubules. Lumina of the cauda epididymis were completely devoid of spermatozoa in 20% of affected testicles, suggesting complete blockage.

Cystic rete testis may be a significant cause of infertility or subfertility, particularly when cysts are large and extend to the head of the epididymis. The origin of these cysts is not known, but may be congenital, and a hereditary basis is suspected. Ultrasonography of the testicles should be performed as part of any selection or pre-purchase examination of breeding alpaca males.

**Keywords:** Infertility, reproduction, male

**Reference**