

Atrophy of a bull testis resulting from hypertrophy of a scrotal lymph node

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Importance

Hyperplasia of a scrotal lymph node causing atrophy and degeneration of a testis of bulls or other domestic animals has not been previously reported. Hyperplasia of a scrotal lymph node may impart an hourglass appearance to the scrotum of a bull.

Diagnostic approach and treatment

A 2 year-old Angus bull was presented because of abnormal scrotal shape first noted 4 months previously. Exudate in the semen and decreased seminal quality coincided with the change in scrotal appearance. The bull's scrotum had an hourglass shape, the left testis was small, and the right testis was substantially smaller than the left. Ultrasonographically, both testes appeared heterogenous and hyperechogenic. An approximately 9.5-cm x 4.5-cm x 4.5-cm mass, hyperechogenic at its center and hypoechoic at its periphery, causing the hourglass appearance, was found in the neck of the scrotum. Evaluation of semen showed degenerate and non-degenerate neutrophils, some containing bacteria, and only 5 sperm per high-powered field; sperm motility was 60 percent. Every sperm examined had an abnormality of the head or midpiece. *Trueperella pyogenes*, a bacteria known to cause mastitis and metritis in cows, was cultured from the semen.¹ The bull anesthetized and the right testis and mass were excised.

Results and discussion

Histological examination revealed the mass to be a non-infected, hyperplastic scrotal lymph node.² This enlarged node, sometimes called the superficial inguinal lymph node³ caused the bull's scrotum to assume an hourglass shape, a shape most commonly indicative of inguinal herniation. The right testis and its epididymis histologically appeared to suffer from chronic atrophy and degeneration. These changes likely resulted from compromise of blood flow caused by impingement on the spermatic cord by the enlarged lymph node. The left testis was expected to hypertrophy and increase production of sperm after excising the right testis and mass.

Keywords: Bull, testis, lymph node

References

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