Leiomyoma in the spermatic cord of a stallion
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A 19 year old American Quarter Horse stallion presented for a routine breeding soundness examination (BSE). During examination, a palpable left paratesticular mass was appreciated measuring 4.5 cm in diameter. The mass was non-painful and located in the area of the spermatic cord dorsal to the left testicle. A bilateral hydrocele was noted on ultrasonography but was minimal (2 mm) and unlikely to be clinically significant. The remainder of the BSE was within normal limits at that time. Without apparent effects on semen quality or breeding ability, the owner elected to monitor the mass and no further diagnostics were pursued. The stallion was successfully used for artificial insemination during the subsequent three breeding seasons with no apparent effect on fertility despite the continued presence of the lesion. Thirty months following initial examination, the patient presented for noticeable enlargement of the mass by the owner and overt bilateral hydrocele. The mass had increased to 10 cm in diameter and profound hydrocele (2 cm) was apparent via visual inspection as well as digital palpation and ultrasonography. Ultrasonography also revealed significant dilation of the vessels in the left spermatic cord as compared to the right. To best preserve the patient’s chance of remaining a breeding stallion, a left hemicastration was recommended. Surgical histopathology revealed clean excision of the mass, which was confirmed to be a leiomyoma. Leiomyoma of the testicle or associated structures is rarely reported in equids with only one previous case published. The leiomyoma in this case is suspected to have arisen from the tunica albuginea, which is composed of dense connective tissue as well as a smooth muscle cells. The mass presumably caused an increase in hydrostatic pressure in the vasculature of the spermatic cord, leading to a ten-fold increase in the hydrocele over a period of 2.5 years. Had the leiomyoma not been removed, semen quality would have undoubtedly declined due to inability to thermoregulate from the mass effect in the spermatic cord compounded by worsening hydrocele.

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Selected references