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Ultrasonographic characterization of the accessory sex glands in normal geldings

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Transrectal ultrasonographic examination of the internal genital tract is an important tool for examination of reproductive tract pathologies in stallions. The normal ultrasonographic appearances and sizes of the stallion accessory sex glands have been described and are often used as reference points to aid in the diagnosis of pathologies such as seminal vesiculitis and ampullary blockage. In spite of the fact that pathologies of the accessory sex glands have been reported in geldings, an ultrasonographic description of the accessory sex glands of normal geldings has not been reported to our knowledge. A detailed understanding of the ultrasonographic character of the normal internal reproductive tract of the gelding would be a valuable clinical tool when examining geldings with suspected pathologies. The objective of this study was to characterize the ultrasonographic appearance of the accessory sex glands of geldings and to establish normal ranges for accessory sex gland sizes. The hypothesis is that the accessory sex glands can be reliably imaged in normal geldings and that an established range of measurements for normal glands can be used as a tool to aid diagnosis of suspected pathology.

Keywords: Accessory sex glands, ultrasound, gelding

Methods

Twelve mature, clinically normal, light horse geldings, two to 25 years of age and with histories of normal castrations were the subjects of this study. Transrectal ultrasonographic evaluation of the internal urogenital tract was performed as previously described for stallions and with a goal of obtaining 24 separate measurements of the various components of the internal urogenital tract for each animal. Images were obtained using both a 7.5 MHz linear-array transducer and a 6.0-10 MHz microconvex linear-array transducer. Descriptive statistics were compiled for each measurement.

Results

A full complement of accessory glands was identified in all animals and 281 of the 288 (97.6%) possible measurements were successfully obtained. Means, ranges and standard deviations were calculated for each measurement. In general, accessory sex glands were similar in appearance, although generally smaller, than those described for stallions. Intra-luminal fluid was frequently present in the seminal vesicles (nine out of 12 geldings).

Discussion

We conclude that the accessory sex glands can be reliably imaged in normal geldings. We have established normal ranges for a variety of dimensions of the accessory glands, based on this sample population of 12 normal animals. We have successfully applied these values to the evaluation of geldings presenting to our hospital for clinical signs associated with the internal urogenital tract, thus demonstrating the utility of these data.

References