Acutely fast growing ovarian sex cord-gonadal stromal tumor in a 13-year-old American Quarter Horse mare
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Importance
Granulosa cell tumors have been described by ultrasound to vary in shape ranging from uniformly dense masses with one or many large fluid filled cyst like structures, however, a single fluid filled granulosa-theca cell tumor (GTCT) that acutely doubles in size within 48 hours has never been reported in a mare.

Diagnostic approach and treatment
A thirteen-year old American Quarter Horse mare was referred to the University of Tennessee for evaluation of a right ovarian mass. Earlier in the breeding season (April 2016) the mare was on altrenogest and had an intrauterine marble placed by the referring veterinarian to decrease behavioral changes coinciding with estrus. Upon presentation, the right ovary was unable to be visualized entirely or measured on ultrasound due to its large size (approximately 10 cm diameter on palpation). The presumed ovarian mass appeared to be a single hypoechoic cavity. The left ovary had multiple small follicles present and the uterus was unremarkable except for the intrauterine marble. Differential diagnoses included GTCT, persistent follicle, or hemorrhagic follicle. At that time, altrenogest was discontinued and 1 mL of deslorelin acetate was administered IM. Over the next two days the right ovarian mass enlarged to approximate 25 cm. On ultrasound, the structure appeared to be a single hypoechoic cavity with areas of increased opacity. Blood was submitted for a hormonal profile. Surgical removal of the right ovary was recommended due to the rapid growth of the mass and potential subsequent rupture.

Results and discussion
A 25 cm X 30 cm mass was removed via a ventral midline incision. The fluid filled structure ruptured during removal. It was submitted for histopathology. The hormonal profile was suggestive of GTCT (anti-Mullerian hormone: 18.9 ng/mL). Histopathological diagnosis was sex cord-gonadal stromal tumor, consistent with a GTCT.

Keywords: Mare, ovary, tumor, fast growth