Standing Hand-Assisted Laparoscopic Ovariectomy: 66 Cases

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Standing hand-assisted laparoscopic ovariectomy is a safe and effective technique for unilateral ovariectomy. Performing ovariectomy by the hand-assisted technique has advantages over techniques requiring general anesthesia and more conventional laparoscopic techniques. Authors' addresses: Department of Surgical Sciences, School of Veterinary Medicine, University of Wisconsin, 2015 Linden Drive, Madison, Wisconsin 53706 (Goodin); and Davidson Surgery Center, Hagyard Equine Medical Institute, 4250 Iron Works Pike, Lexington, Kentucky 40511 (Rodgerson, Gomez); e-mail: jacobtgoodin@gmail.com. © 2009 AAEP.

1. Introduction
Ovariectomy is the most common procedure performed on the equine ovary. Indications for ovariectomy include sterilization as well as treatment of neoplastic and non-neoplastic conditions. Several techniques have been described for performing both unilateral and bilateral ovariectomy in standing and recumbent mares. Our objective was to evaluate the safety and efficacy of using a standing hand-assisted laparoscopic technique for removal of abnormal ovaries.

2. Materials and Methods
Medical records of 66 mares that underwent unilateral standing hand-assisted laparoscopic ovariectomy during a period of 8 yr were reviewed. Information obtained during the review included signalment, size of the ovary, ovary removed, ovarian pathology, presence or absence of hemorrhage after transection of the mesovarium, post-operative complications, and length of hospitalization.

3. Results
Mean ovarian diameter was 17 cm. Histopathology reports were available for 52 of the mares. Of these, there were 41 granulosa cell tumors (79%), 8 ovarian cysts (15%), and 1 teratoma (2%). No histopathologic abnormalities were found in 2 ovaries (4%). Hemorrhage was observed laparoscopically in 16 of 66 mares (24%) after transection of the mesovarium. Complications encountered during surgery included one mare going down in the stocks and one mare hemorrhaging from the incision. Post-operative complications included two cases of mild colic. Overall complication rate was <1%.

4. Discussion
All attempts made to remove ovaries with this method were successful. Complications encountered were similar to other techniques. We conclude that standing hand-assisted laparoscopic ovariectomy is a safe and effective technique for the removal of abnormal ovaries.