Hysteroscopic hydrotubation of the oviducts as a treatment for idiopathic infertility in the mare – a retrospective study
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In a small subset of mares the cause of infertility cannot be determined by routine diagnostic tests (trans-rectal ultrasound, vaginal speculum examination, digital examination of the cervix, uterine culture and cytology, hysteroscopic examination, uterine biopsy). When the results of all diagnostics performed are negative and no pathology of the reproductive tract can be identified, it is hypothesized that bilateral obstruction of the oviducts may be the cause of the infertility. Several studies have demonstrated the presence of proteinaceous plugs within the oviducts of 42% to 87% of mares and there is the possibility that these plugs may obstruct passage of the oocyte and or embryo.1 In recent years, two procedures (laproscopic application of PGE2 gel to the oviducts and hydrotubation of the oviducts) have been described to treat the oviducts of mares suspected of oviductal blockage as a cause of their infertility.2,3

This is a retrospective study to determine pregnancy rates in mares after hysteroscopic hydrotubation of the oviducts was performed as a treatment for idiopathic infertility. During the 2014 and 2015 breeding seasons fourteen mares presented to the LeBlanc Reproduction Center at Rood and Riddle Equine Hospital for hydrotubation of the oviducts as a treatment for idiopathic infertility where no other cause could be determined. All of the mares had been bred three or more cycles (range 3-7) to a fertile stallion without establishing a pregnancy or obtaining an embryo. Hydrotubation of the oviducts is performed during diestrus. A one meter endoscope is advanced through the cervix and the uterus is insufflated with air. A 200 cm polyethylene tube (1.7 mm outer diameter), with a 22 gauge 4.45 cm injection catheter attached to one end and a human angiography guide wire passed through, is passed through the endoscope and advanced into the orifice of the oviductal papilla. The oviduct is then flushed with 10 mls of saline. The procedure is repeated on the other oviduct. Mares are then bred the following cycle. After hydrotubation of the oviducts 78.6% (11/14) of the mares were pregnant or an embryo was obtained within two cycles. Hysteroscopic hydrotubation of the oviducts has proven to be a valuable treatment modality for re-establishing fertility in mares that have been unsuccessfully bred to fertile stallions for multiple cycles where no reproductive pathology can be identified.

Keywords: Oviduct, oviductal plugs, hysteroscopic hydrotubation, infertility

References