MEDICAL MANAGEMENT OF GUTTURAL POUCH TYPANMY IN AN ARABIAN FOAL - A CASE REPORT

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ABSTRACT
Successful Medical management of guttural pouch tympany in one-month Arabian foal with endoscopically guided placement of foley catheters is discussed.

Keywords: Guttural pouch tympany, Arabian foal, foley catheter

INTRODUCTION
Guttural pouches of the horse are bilateral, air-filled, outpouchings of the eustachian tubes with capacity of 300 to 500 ml (Budras et al., 2009) lined with a ciliated pseudostratified columnar epithelium containing goblet cells (Rush and Mair, 2004). These are located in the parotid region, extending from the base of the skull and the atlas bone to the nasopharynx (Lepage et al., 2004). Guttural pouch tympany is a congenital abnormality affecting the Arabian foals mostly fillies than colts within one year of age causing abnormal inflation of pouches (Metzger et al., 2012; Reed et al., 2018). This is characterized by a non-painful distension of one or both guttural pouches (Blazyczek et al., 2004). Severe distension can cause dyspnea, dysphagia, inhalation pneumonia and secondary empyema that makes it a life threatening disease. The etiology of tympany is unknown, but it may be due to the presence either of abnormally large mucosal folds (plica salpingopharyngea) or to a redundancy of the plica salpingopharyngea at the pharyngeal orifice or malfunction of the pharyngeal musculature. Mucosal flap acts as a one-way valve, allowing air to enter but not to exit. Inflammation from an upper airway infection, persistent coughing and muscle dysfunction have been proposed as alternative causes. In majority of the cases no anatomic abnormality at the guttural pouch opening or adjacent structures could be detected (Rush and Mair, 2004; Krebs and Schmotzer, 2007; Sellon and Long, 2014).

CASE HISTORY AND OBSERVATION
A 10-day-old Arabian filly weighing 40 kg was presented at Barzan Veterinary Clinic, Amiri guard, Qatar with a complaint of gradual onset of distention at the parotid region, leading to bilateral swelling in the parotid region causing abnormal sound and respiratory distress (Fig. 1). The swelling could be palpated externally and Endoscopy revealed distended pouches causing compression of the larynx, pharynx and collapse of the dorsal pharyngeal wall. Further lateral radiographs of neck revealed distention of pouches beyond second cervical vertebra and displaced proximal trachea suggestive of guttural pouch tympany (Fig. 2).
TREATMENT AND DISCUSSIONS

The Foal was sedated with xylazine 0.3mg/kg intravenously, hair around the muzzle were clipped and external nares were cleaned. Foley catheters 24fr were placed into each guttural pouch using endoscopic guidance via the nasal passage (Fig. 3) leading to immediate releasing of air from the pouches and causing deflation of the parotid region (Fig. 4) which was evident radiographically (Fig. 5). The balloon of catheters were inflated and retained in the pouches. The catheter was sutured externally, bandaged and ceftiofur at 4mg/kg intramuscularly was administered for one week. The guttural pouches were lavaged on every alternate day with warm ringers lactate mixed with amikacin 5 ml (250 mg/ml) until one week and once in three days until three weeks and catheter removed after four weeks. The foal made an uneventful recovery after one month of treatment.
neodymium:yttrium-aluminum-garnet (Nd:YAG) laser or trans endoscopic electro surgery or Viborg’s triangle approach or through a modified Whitehouse approach (Schambourg et al., 2006; Ohnesorge and Rotting, 2012; Freeman, 2015). A More conservative treatment by inserting an indwelling foley catheters into the affected guttural pouch to deform the plica salpingopharyngea is another option to treat horses for guttural pouch tympany and in current case, this was employed with a successful outcome (Caston et al., 2015; Greet, 2015).

SUMMARY
Foals can be treated successfully with placement of foley catheters into the guttural pouches over a four to six week period with minor to no complications. This treatment is a simple, low-cost viable method to achieve permanent resolution of guttural pouch tympany in foals because surgical treatment is technically challenging and requires special skills and equipment.

REFERENCES


