TECHNOLOGY OFFER

Minimal invasive conchotomy in horses with paranasal sinus disease

Description:

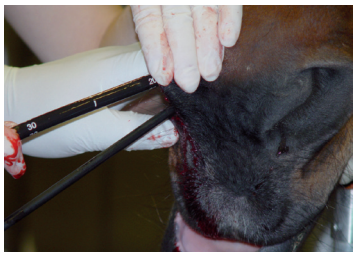
For the new method long electrosurgical instruments were built and advanced up the ventral nasal meatus under endoscopic control. An opening created from the most rostral part of the sinus system into the nasal passages facilitates drainage and is conductive towards the resolution of disease. Traditionally access to the ventral concha is gained from the outside through the facial bones. This is either achieved by trephination or bone-flap surgery. Conchotomy is then performed by punching through the wall of the ventral conchal sinus into the nasal passages or by conchal resection. Common severe complications with these methods include high blood loss, bone sequestrum formation, osteomyelitis and chronic sinus infection perpetuated by surgical wound infection.

For the new method long electrosurgical instruments were built. For the surgery the instrument is advanced up the ventral nasal meatus under endoscopic control. Once the desired location for conchotomy on the medial wall of the ventral concha is identified an opening is created using coagulating and cutting current.

All surgeries were performed on the standing sedated horse and successful in creating an opening into the ventral conchal sinus. In 50% of the patients one procedure was enough to achieve lasting drainage. Surgery time ranged from 15 to 45 minutes. Blood loss was considerably less than with standard procedures and was not considered to be significant. No complications arose from the surgery per se. Preliminary data suggest complete resolution of the sinusitis in 50% of the cases (follow up 7-9 months) and considerable improvement in 2 cases (follow up 1-2 months). One horse had to be euthanized due to unresponsiveness.

Advantages:

- An innovative, fast and cost effective technique for surgery
- Standing sedated horses
- Reliable in achieving sinus drainage
- Less side effects
- Similar success rates as “traditional” methods



Patents:

- not applicable

Availability:

literature, equipment and/or surgery can be obtained at the University of Veterinary Medicine, Clinical Department Large Animal Surgery and Orthopedics. Contact: Edmund Hainisch (Edmund.Hainisch@vetmeduni.ac.at)

Contact:

Jacobus C.A. van Meel, PhD
jacobus.vanmeel@vetwidi.at
phone: +43 (1) 25077-1044

Mag. Christine Ruckenbauer
christine.ruckenbauer@vetwidi.at
phone: +43 (1) 25077-1047

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