

The Case of the Skinny Mini

Written by: Kara Frerichs, DVM
Primary doctor on the case: Kim Conover, DVM

Meet the patient: "Spot" 1 year old miniature horse colt



*Patient's name has been changed for the sake of this article.

Exam: At the end of July he presented to Nebraska Equine for a month long duration of off-and-on clear discharge from the nose and a snoring sound when breathing. He had arrived at his current home last winter and had not put on weight despite the owners care.

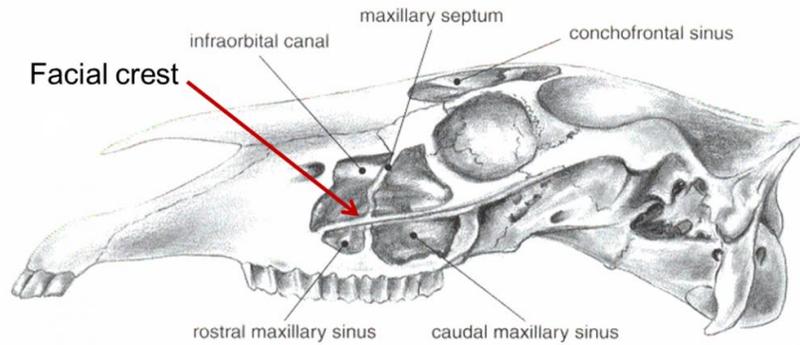
Other than the respiratory noise and very thin body condition, his physical exam was exactly what a normal miniature horse should be. His bloodwork was also within normal limits. Radiographs were taken of his chest to evaluate his lungs and trachea. These were also normal. It was recommended he come in to the clinic for more diagnostics such as endoscopy of his nasal passages. Unfortunately, the endoscope was too large to fit into Spot's miniature horse-sized nasal passages.....Plan B: take radiographs of Spot's head.

Radiographs: A mass consistent with soft tissue or fluid was filling Spot's right maxillary sinuses. Spot was diagnosed with a sinus cyst.



Image: the radiograph on the left is a side view of the skull. The radiograph on the right is a view from the front of the skull showing the same mass.

Sinuses: Horses have multiple large sinuses in their skull that drain into the nasal passages. These sinuses are normally air-filled.



<https://www.severnedgevets.co.uk/equine/advice/equine-sinus-cysts>

What is a sinus cyst?: A sinus cyst is a fluid-filled structure within the sinus. While sinus cysts can occur in any horse, they are more common in younger horses. The outer lining of the cyst is a membrane-like material that secretes fluid, forming a bubble-like structure. In the case of Spot, the cyst had expanded to the point that it entirely filled his right maxillary sinus. Some horses may require more diagnostics like Computed Tomography (CT scan) to differentiate between a fluid filled sinus, a tumor or an infection in the sinus.

Sinus cysts can expand to the point that they can put pressure on other structures in the skull and disfigure, or change the shape, of the skull. Cysts can also block the nasal passages making breathing difficult such as in Spot's case. While they may burst and drain, as long as the cyst lining remains in the sinus it will produce fluid and continually re-fill. Surgical removal of the lining of the cyst is the only way to truly get rid of the cyst.

Now what?: Spot was placed under general anesthesia for surgical removal. Guest surgeon, Dr. Scott McClure DVM, DACVS, performed the surgery at Nebraska Equine. The cyst lining was removed and the sinus was packed with gauze. A tracheostomy tube was placed in case the packing, drainage, and swelling prevented Spot from breathing through his nose. Since horses are "obligate nasal breathers" they can only breathe through their nose, creating a life threatening situation if they cannot. Spot spent the next few days being treated with antibiotics, pain medication and having his sinus flushed daily. When we were sure he would be able to breathe through his nose, the tracheostomy tube was pulled and he was sent home on antibiotics.



Left image: The "C"-shaped incision on his forehead is where the skull was opened up to access the frontal sinus.

Right image: Sutures were removed at 2 weeks, at which time Spot was doing well at home, breathing normally, with no nasal discharge.



Special thanks to "Spot's" owners for allowing us to share his case!