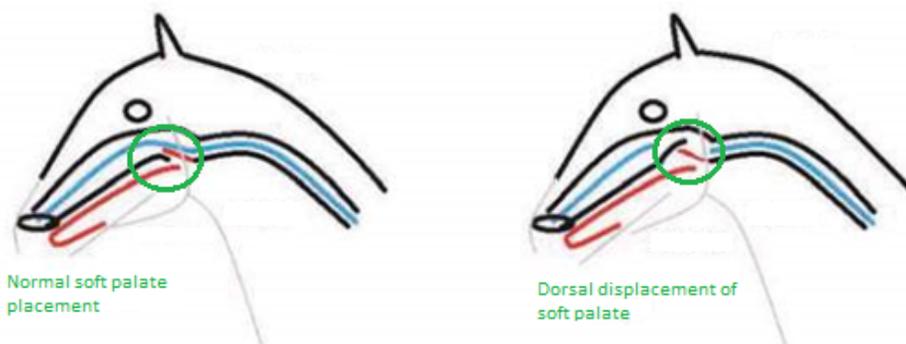


Dorsal Displacement of the Soft Palate in Horses



Normal soft palate placement

Dorsal displacement of soft palate

Cummings
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Tufts Hospital for Large Animals

TIE FORWARD FACT SHEET

DIAGNOSIS

Dorsal displacement of the soft palate (DDSP) is a condition that affects the upper respiratory tract. In the horse, the soft palate is an extension of the hard palate, and separates the oral and nasal cavities. Normally, the soft palate lies below the epiglottis. The epiglottis is a triangular-shaped tissue that flips up and closes the larynx and trachea when a horse swallows to allow food to enter the esophagus properly. In its normal position, the epiglottis sits firmly atop the soft palate maintaining the oral/nasal seal, and in turn allowing for maximum airflow. Intermittent DDSP occurs when the soft palate slips above the epiglottis. This causes a sudden loss in performance due to restricted airflow. Often a “gurgling” noise can be heard when the horse is working, particularly at high speeds. This is due to the soft palate moving up and down as air passes over it while the horse breathes. DDSP can be caused by laryngeal inflammation sometimes due to infection, or congenital malformations. When the horse swallows, the soft palate usually can return to its normal position but when the soft palate becomes permanently displaced or intermittently during racing, medical intervention becomes necessary.

TREATMENT

While some cases of DDSP can be managed conservatively, some do require surgical intervention. Laryngeal advancement, more commonly referred to as a “tie forward” is currently considered the gold standard surgical treatment for correcting DDSP. The purpose of a tie forward is to advance the larynx forward so it sits over the soft palate, decreasing the distance between the epiglottis and the opening of the airway, and forcing the soft palate to stay in the correct position. A five-inch surgical incision is

made on the underside of the throat and the larynx is pulled forward and anchored by two sutures to the basihyoid bone. This procedure is done under general anesthesia and usually takes approximately 30-45 minutes. Once the horse has recovered from anesthesia, an endoscopy is performed to ensure that the epiglottis can still form a tight seal and that no food material is falling into the trachea.

PROGNOSIS

While prognosis is highly dependent on the case and severity of displacement, about 80-85% of horses are able to return to normal athletic activity post-operation.

SAMPLE REHABILITATION SCHEDULE

Every horse is different and every rehabilitation schedule is tailored to meet your horse's specific needs. Below, you will find an example of a rehabilitation plan for a horse post-tie forward surgery:

Tie Forward:

- Two weeks of stall rest with walking in-hand
- Two weeks of small paddock turnout
- Recheck endoscopy at four weeks before returning gradually to work

CONTACT

For more information, please contact the Equine Sports Medicine and Surgery Service at hlasportsmedicine@tufts.edu.