

DORSAL DISPLACEMENT OF THE SOFT PALATE (DDSP)

Aetiology	Treatment
<ul style="list-style-type: none"> - Weakness of the intrinsic musculature of the soft palate - Abnormal relationships between the larynx and the hyoid apparatus - Mulfunction of the protrudor (genio-glossus) muscle of the tongue 	<p>Conservative measures;</p> <ul style="list-style-type: none"> - Eliminate predisposing factors including fitness, or alternatively, to provide additional time or medication for recovery from respiratory tract infection - Aids to prevent mouth-breathing such as a drop or cross noseband, or rubber snaffle - Australian noseband - Tongue straps or tongue-ties to discourage caudal retraction of the tongue and assist in the functioning of the genio-glossus muscle - Cornell Collar aims to push the body of the thyroid rostrally and dorsally in relation to the basihyoid bone, acting as a non-surgical 'tie-forward' capacity <p>Surgical Treatments;</p> <ul style="list-style-type: none"> - <u>Resection of the free border</u> (staphylectomy); increase the size of the intra-pharyngeal ostium so that the intra-narial configuration of the larynx would be expected to be less stable. Performed under general anaesthesia. - <u>Section of the strap muscles</u> (sterno-thyro-hyoideus myectomy); laryngeal retraction by the action of the sterno-thyroid and sterno-hyoid muscles. Performed under local analgesia and sedation or general anaesthesia. - <u>Interferences to the dorsal surface of the soft palate</u>; scarification of the soft palate either by the trans-endoscopic application of laser cautery or by injection of sclerosis agents tightens the soft palate. Done standing and recovery time to return to training is short. - <u>Interferences to the ventral surface of the palatal arch</u>; insults to the oral mucosa and the underlying loose glandular tissue but doesn't extend deeper than the aponeurosis of the palate. Done with general anaesthesia to increase tension in the part of the palate which is in contact with the tongue. - <u>Laryngeal advancement ('tie forward')</u>; larynx is moved rostrally and dorsally in relation to the basi-hyoid bone and comprises the placement of sutures to mimic the action of the thyro-hyoid muscle.
Clinical Signs	
<p>With abrupt respiratory obstruction;</p> <ul style="list-style-type: none"> - Loud vibrant noise at expiration <p>With exercise;</p> <ul style="list-style-type: none"> - Horse is unable to maintain its speed and may completely lose its stride rhythm as it makes gulping attempts to restore the larynx into the intra-narial position and eliminate air from the oropharynx - With return to normal anatomical configuration the horse is able to resume galloping and not appear distressed 	
Diagnosis	
<p>History;</p> <ul style="list-style-type: none"> - With sudden onset of vibrant noises with vigorous exercise - Overall state of fitness of horse including recent exposure to upper respiratory tract infection <p>Other techniques;</p> <ul style="list-style-type: none"> - Ridden exercise test - Endoscopy - Radiography - Dynamic HSTE 	
Prognosis	
<ul style="list-style-type: none"> - Cautious prognosis - Surgical treatments are at best, unpredictable 	

LARYNGEAL ADVANCEMENT ('TIE-FORWARD')

Procedure	<ul style="list-style-type: none">- The horse is placed under general anaesthesia in dorsal recumbency and endotracheal intubation is performed- A 15cm ventral midline incision is made, extending from the rostral aspect of the basihyoid bone to 1cm caudal to the cricoids cartilage- The paired sternohyoid muscles are bluntly separated on the midline, and dissection is bluntly extended to the ventral aspect of the larynx- The sternothyroid muscle tendon of insertion on the thyroid cartilage lamina is undermined and isolated in preparation for transaction- One size 5 polybend suture is inserted at the ventral aspect of the right sternothyroid tendon of insertion and exited from the lamina of the thyroid cartilage and through the thyrohyoideus muscle 1cm rostrally and slightly dorsally from its insertion point- The suture is then placed again through the right lamina of the thyroid cartilage slightly more dorsal (0.5cm) and exits more dorsally than the previous bite forming a loop in the thyroid lamina- The procedure is repeated on the left side- The sternothyroid tendon of insertion is transected after the sutures are placed in the thyroid lamina- A suture or wire passer is used to pass the most dorsal suture on the right side and most ventral suture on the left side dorsal to the basihyoid to exit on the right side of the lingual process where they are tagged with separate hemostats- The most dorsal suture on the left side and most ventral suture on the right side are then similarly passed dorsal to the basihyoid to exit on the lingual process where they are tagged with separate hemostats
Complications	<ul style="list-style-type: none">- Low complication rate procedure- Intra-operative bleeding (4.1%)- Excessive swelling (0.4%)- Incisional infection (0.7%)
Aftercare	<ul style="list-style-type: none">- Maintenance on antibiotics and anti-inflammatories for short period of time- Return to training at 2 weeks- In first 2 weeks feed and water should be given at shoulder height