**Surgically**

1. **Laryngotomy**

-Horse in dorsal recumbency

-6cm ventral midline incision made directly over the cricoarytenoid ligament of the larynx.

-Split the midline fascia of the sternohyoideus and omohyoideus muscles

-Identify the cricoid and thyroid cartilages, the cranial thyroid notch and the cricothyroid membrane to ensure the deeper incision will be in the correct place.

-Palpate the laryngeal prominence on the ventral midline of the thyroid cartilage; this is the cranial border of the incision.

-self retaining retractors can be used to separate the muscles and loose fascia and fat over the cricothyroid ligament.

-Incise the ligament in the same direction as the skin

-Using a quick stab, incise the cricothyroid membrane into the larynx at the caudal aspect of the ligament adjacent to the cricoid cartilage.

-Extend the cricothyroid ligament incision to the laryngeal prominence.

1. **Ventriculectomy**

* Identify the laryngeal ventricle with index finger.

(see image) It lies just cranial to the vocal fold

* Insert finger into saccule by moving it laterally, dorsally and caudally towards the base of the ear.
* Dry saccule with gauze on a long Allis forceps.
* To evert mucus membrane, insert bur deeply into the saccule in the dorsal and caudal direction.
* Rotate to engage the mucosa while being pushed into the saccule.
* Stop rotation when resistance occurs. Over rotation can cause the mucosa to tear and make eversion difficult.
* Once the mucosa is engaged, evert by slowly retracting the bur out of the ventricle.
* Grasp the everted mucosa with a curved Ochsner forceps
* Unfurl the mucosa and remove the bur
* Use a second Ochsner forceps to alternatively cross clamp the mucosa and pull it axially.
* Once full eversion has been achieved, no cavities will be present cranial or caudal to the everted cul-de-sac.
* Excise the mucosa with scissors close to the vocal cord.
* Remove the excised mucosa.

Note: If no bur is available, the mucosa can be everted by traction with forceps or by incising just cranial to the ventricle and, inserting a finger through the incision lateral to the mucosa, and pulling the mucosa into the laryngeal lumen with finger traction.

1. **Ventriculocordectomy**

* Following the ventriculectomy, a 2cm long and 2-3 mm wide, crescent shaped wedge of tissue is removed from the leading edge of the vocal fold.

If the procedure was done with the horse standing, incisions are left to heal without suturing. If under General anaesthesia, 2-0 polydioxanone is used in a simple continuous pattern to appose the abaxial (outside) edge of the vocal fold and axial border of the ventricle.

**Using LASER EXCISION:**

Trans-nasal endoscopically guided laser-assisted ventriculocordectomy

can be performed in the standing sedated horse. Commonly a diode laser is used, and surgery is performed via manipulation of the vocal fold by bronchoesophageal grasping forceps and a modified Blatternburg burr, which can be passed along the nasal passage.