Pharyngeal Paralysis

Pharyngeal paralysis may be the result of a central or peripheral nervous system disorder or may develop secondary to severe local disease that may cause collapse, obstruction, or malfunction of the pharynx.

1-Of the CNS disorders,

1-rabies is the most important of the viral causes of encephalomyelitis,

2-CNS intoxication,

- -lead poisoning,
- -cranial trauma,
- -intracranial abscessation, and
- -neoplasia may also result in pharyngeal paralysis in many species.

2-Peripheral causes of pharyngeal paralysis include

- 1-pharyngeal trauma and
- 2- abnormalities of the pharyngeal adnexa,
- 3- particularly involving the guttural pouch of horses.

<u>3- Disorders of the guttural pouch resulting in pharyngeal paralysis include:</u>

1- guttural pouch mycosis,

- 2- guttural pouch empyema,
- 3-guttural pouch neoplasia, and
 - 4-osteoarthropathy of the temporohyoid joint.
- 5-Equine protozoal myeloencephalitis can also cause pharyngeal paralysis in some horses.
- -The degree of pharyngeal paralysis ranges from complete to incomplete, depending on whether the abnormality is unilateral or bilateral or central versus peripheral.
- -Unilateral lesions may result in partial pharyngeal malfunction. For example, horses with guttural pouch disease may be able to swallow but may still develop clinical signs of dysphagia (eg, nasal discharge of food or water, coughing).

Clinical Findings and Lesions:

- 1-Clinical signs of pharyngeal paralysis include dysphagia with oral or nasal discharge of food, water, or saliva.
- 2- Other clinical signs include coughing, dyspnea, ptyalism, or bruxism.
- 3-Affected animals are at risk of inhalation pneumonia, dehydration, and cardiovascular and respiratory shock.
- 4-Affected animals frequently have one or more signs, including **pyrexia**, **coughing**, **retching**, **and signs compatible with esophageal obstruction**.
- 5-Severely affected animals may die or should be considered for euthanasia.

Animals with dyspnea may require an emergency tracheostomy before any clinical diagnostic techniques can be performed.

Diagnosis:

- -The history and clinical signs are usually indicative of pharyngeal paralysis.
- 1- A baseline CBC and biochemistry profile should be performed.
- 2-Affected animals typically may be hemoconcentrated, have electrolyte and acid-base disturbances, and may exhibit prerenal azotemia.
- 3- Serology, skull radiographs, thoracic radiographs to evaluate for aspiration pneumonia, endoscopy, ultrasonography, CT, and MRI (if available) are all valuable aids to determine whether the underlying cause is central or peripheral.
- 4-The use of CT and MRI has particular value in evaluating CNS causes of pharyngeal paralysis in small animals. Animals suspected of having rabies should be handled appropriately.

Treatment:

Treatment protocols for pharyngeal paralysis vary depending on the underlying cause.

- 1-Treatment generally includes the administration of antimicrobial and anti-inflammatory medications.
- 2-Because of the inability to swallow normally, IV administration is preferred.
- 3- Animals with hemoconcentration should be administered IV fluids.
- 4-If the animal is unable to eat without aspiration, extraoral or parenteral nutrition should be strongly considered. Extraoral alimentation with pharyngostomy, esophagostomy, or nasogastric tubes or temporary rumenostomy in ruminants can be an economical and effective way to provide nutritional support.

- 5- Other treatments include local therapy for pharyngeal abscesses.
- -The prognosis for pharyngeal paralysis varies with the instigating cause.
- -The prognosis for pharyngeal abscessation can be favorable,
- -whereas the prognosis for guttural pouch disease can be guarded. If affected animals do not improve after 4–6 wk of symptomatic therapy, the prognosis is poor and euthanasia should be considered.