Ptyalism & Pseudoptyalism

**History & examination**
- Complete physical examination, evaluating salivary gland size and symmetry
- Full neurologic examination
- Breed: Giant breeds (eg, St. Bernard) or Yorkshire and Maltese terriers (increased PSS incidence)
- Age: Young animals likely to ingest toxins/FBs or have congenital issues; neoplasia likely in older animals
- History of vaccination (eg, rabies, calicivirus) or trauma (eg, electric cord injury)
- Exposure to toxins, medications, topical products
- Duration: Acute (eg, FB) vs chronic (eg, neoplasm)
- Discoloration of saliva (eg, blood, purulent discharge) suggestive of oral problem
- Halitosis may indicate oral, esophageal, or gastric disease
- Pawing at face/mouth may indicate orofacial pain, hypocalcemia
- Change in eating behavior: Dropping food, chewing on one side of the mouth, pseudoanorexia or hyporexia
- Diet (eg, high-protein) can cause drooling because of precipitation of HE in patients with liver dysfunction
- Other GI (ie, retching, regurgitation, vomiting, weight loss) or neurologic signs (ie, seizures, gagging, dysphagia)

**Toxicity**
- Household cleaners
- Plants/trees (eg, Kentucky coffee tree, poinsettia)
- Insecticide/pesticide (eg, boric acid, aldicarb)
- Rodenticide (eg, zinc phosphide)
- Illicit drugs (eg, cocaine, amphetamines)
- Animal venoms (eg, black widow spider, scorpion, toads [Bufo spp], coral snake, sea hare [Aplysia spp])
- Human sleep aids (eg, zolpidem)
- Mushrooms (eg, Amanita muscaria)
- Metaldehyde
- Human tricyclic antidepressants (eg, clozapine)
- 5-hydroxytryptophan (ie, Griffonia seed extract)

**Medication reaction**
- Medications/topical products given topically or PO (eg, selamectin, moxidectin–imidacloprid)
- Cholinergic drugs (eg, bethanechol), anticholinesterase drugs (eg, pyridostigmine), cholinesterase inhibitors (eg, OP)
- Pyrethrins/pyrethroids
- Ivermectin
- Bitter drugs

**Discontinue medication**
- Supportive care

**Known toxin**

**Known medication exposure**

- Rabies should always be considered in patients presenting with drooling.
- ** Distinction between ptyalism and pseudoptyalism is not absolute; oropharyngeal and CNS diseases can result in increased salivary production and inability to swallow.
- HE management includes low-protein diet, enemas, oral antibiotics, lactulose, zinc supplementation, supportive care.

ACHR Ab = acetylcholine receptor antibody, FB = foreign body, FNA = fine-needle aspiration, HE = hepatic encephalopathy, OP = organophosphates, PSS = portosystemic shunt, SCC = squamous cell carcinoma, $T_4$ = thyroxine