

An atypical case of guttural pouch mycosis
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A thirteen-year-old Thoroughbred gelding presented to Cornell's Large Animal hospital with a two-week history of right-sided nasal discharge, a three-day history of right head tilt, and a one-day history of lethargy and inappetance. On presentation, he had right-sided facial paresis with an ear droop, incomplete menace, and nose pull to the left. He was head shy and did not want to bend his neck to the right. Endoscopy of his right guttural pouch revealed a large white plaque with black spots extending along the length of the stylohyoid bone to the dorsocaudal roof of the pouch. His internal carotid, external carotid, and maxillary arteries could not be visualized due to the extent of the lesion. Cytology of the fluid revealed a bacterial infection, most likely secondary to a primary guttural pouch mycosis. The horse was placed on fluids, DMSO, antibiotics, and banamine. The following morning, head radiographs showed possible lysis of the stylohyoid bone. Computed tomography showed no bony fusion of the stylohyoid to the petrous temporal bone, but did reveal an otitis media and gas tracking back from the guttural pouch to the right atlanto-occipital joint, as well as soft tissue proliferation in the right guttural pouch. Additional sampling of the guttural pouch lesion revealed *Aspergillus sp.* Right-sided ceratohyoidectomy was followed by ligation of the internal carotid, external carotid, and maxillary arteries. Post-operatively, Rusty was placed on systemic itraconazole with daily topical lavage of the guttural pouch. Culture of the atlanto-occipital joint was positive for Salmonella. Rarely documented complications of guttural pouch mycosis include otitis media and atlanto-occipital joint infection. Surgical treatment of guttural pouch mycosis also comes with many complications, such as blindness, neurologic deficits, and incisional infections.

Selected References

1. Lepage OM, Perron MF, Cadore JL. The mystery of fungal infection in the guttural pouches. *The Veterinary Journal* 2004;168:60-64.
2. Dixon PM, Rowlands AC. Atlanto-occipital joint infection associated with guttural pouch mycosis in a horse. *Equine Veterinary Journal* 1981;13:260-262.
3. Hardy Joanne, Robertson JT, Wilkie DA. Ischemic optic neuropathy and blindness after arterial occlusion for treatment of guttural pouch mycosis in two horses. *Journal of the American Veterinary Medical Association* 1990;196:1631-1634.
4. Leveille R, Hardy J, Robertson JT, et al. Transarterial Coil Embolization of the Internal and External Carotid and Maxillary Arteries for Prevention of Hemorrhage From Guttural Pouch Mycosis in Horses. *Veterinary Surgery* 2000;29:389-397.