DECISION MAKING IN GUTTURAL POUCH MYCOSIS
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Key Points

- Transcatheter methods are the preferred in horses with hemorrhage from guttural pouch mycosis because occlusion can be completed accurately through angiographic guidance.
- Nitinol plugs offer important advantages over coils.

In horses at risk of fatal hemorrhage from guttural mycosis, occlusion of the major terminal branches of the equine carotid arterial system has evolved through different methods from ligation, balloon catheters, detachable balloons, microcoils, and nitinol plugs. The last two transcatheter methods have emerged as the methods of choice. Because embolization techniques are so widely used for small animal vascular lesions, inventory, storage lives, and expertise do not limit their use in horses in most university hospitals.

Atypical anatomy and aberrant branches may be more common than reported with this disease, so preocclusion angiography is critical. Both coils and plugs are inserted through catheters that can be guided from the common carotid artery into the eroded vessel under fluoroscopic guidance. With the nitinol vascular plug method, a single nitinol plug is delivered at each site whereas at least two transarterial coils are typically required at each site to effectively stop blood flow. The nitinol plug can also be retracted into the delivery cable if unsatisfactory placement is noted. The plugs are more expensive than the coils but availability of coils is decreasing. Both have the same disadvantages, the need for specialized equipment and expertise.

Hemorrhage following occlusion with coils or plugs is rare because an aberrant branch can be identified and occluded if it is the site of arterial erosion or avoided if it is not. In 27 horses that had transarterial coil embolization for treatment of epistaxis in two hospitals, only two had epistaxis after arterial occlusion. Bilateral arterial occlusion during the same surgery should be considered in horses with bilateral arterial erosion, but this is rare. Failure to place coils in the rostral to the site of erosion is a rare cause of postocclusion hemorrhage and results from a thrombus or narrowing in the vessel. The ability to selectively occlude affected vessels with a minimally invasive approach makes transarterial coil or nitinol embolization the preferred treatments. Although these procedures can be done standing, general anesthesia is the preferred method of restraint. The author prefers to occlude only the artery affected, if that can be clearly determined by endoscopy.