

History and clinical findings:

Euthanasia after rhinoscopy of 14 year-old palomino mare with chronic nasal discharge. Head sawn sagittally at necropsy.

1. Describe the abnormalities
 2. What basic disease processes might be present?
 3. Pathological diagnosis (give other possibilities in order of preference)?
 4. Possible causes of this condition (in order of preference)?
-

1. The mucosa of the posterior parts of right dorsal and ventral turbinates is overlain by irregularly-shaped finely nodular thickenings whose free surfaces are variably reddened by haemorrhage, and also bear fine flecks of pale exudate. Several more deeply congested/haemorrhagic botryoid masses hang from beneath the ethmoid turbinates down into the naso-pharynx.

2. Such bulky, viable-looking new tissue could only be due either to neoplasia or to chronic proliferative inflammation, so these are the options for basic disease process. The degenerative processes (haemorrhage, oedema and focal necrosis) would be secondary, unless this is a case of ethmoid haematoma (see below).

3. Either metastasising nasal mucosal malignancy, or chronic active (granulomatous) proliferative rhinitis. A third possibility is ethmoid haematoma, the pathogenesis of which is still a mystery.

4. It's not easy to discriminate between granulomatous rhinitis and mucosal malignancy on the basis of these illustrations alone. On close examination, however, the mucosal nodules seem to bear small pits from some of which flecks of pale material appear to be exuding. These micro-fistulas are fairly typical of deep mycotic infections, and the classic cause of deep nasal mycosis in horses is the entomophthoraceous fungus *Conidiobolus coronatus*. So that is the preferred aetiological diagnosis, with nasal malignancy and ethmoid haematoma as differentials, neither of which can be assigned a cause.

There's a nice compact review of equine conidiobolomycosis in the Compendium of Continuing Education for Veterinarians **25:872** (2003) by J. Taintor *et al.*: see http://www.vetlearn.com/Media/PublicationsArticle/PV_25_11_872.pdf