

Progressive Ethmoidal Hematoma originating from the Rostral Maxillary Sinus in an 18-year-old Warmblood Gelding

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Introduction:

A progressive ethmoidal hematoma (PEH) is a rare, angiomaticus-like mass covered by respiratory epithelium that usually originates from the submucosa of the ethmoid turbinates. The mass is found in the nasal meatus or invading the paranasal sinuses. Clinical signs (uni- or bilateral intermittent epistaxis) are seen when a PEH grows large enough to cause local destruction. Diagnosis is based on clinical examination, radiography and endoscopy. Computed tomography (CT) can be useful to determine the extent of the mass and involvement of the paranasal sinuses.

History:

An 18-year-old Warmblood gelding was presented with a history of epistaxis of the right nostril. Endoscopy was performed three times over five months. A mass was detected during the third examination using endoscopy, and a CT examination was requested to determine the extent and origin of the mass.

CT examination:

Based on the history and the mass's heterogeneous, well-delineated appearance on CT, a PEH originating from the right rostral maxillary sinus seemed the most likely diagnosis. CT images showed no bone destruction or involvement of other structures.

Surgery:

Surgical excision was performed using a maxillary sinus flap approach in the standing horse.

Histopathology:

PEH was confirmed based on histopathology.

Conclusion/Discussion:

The complete mass was successfully removed and the horse recovered uneventfully. 2 years later unilateral hemorrhagic discharge reoccurred, but the owner did not want to invest in further examinations.

This case illustrates that a PEH can develop in various locations without any involvement of the ethmoid turbinates. CT images are better for localizing the mass, determining its origin and extend, and consider the choice of treatment, especially for cases where visualization of the mass with endoscopy is limited or absent. Contrast-enhanced CT allows differentiation of PEHs from tumors (carcinomas), granulomas and cystic structures, and visualization of any invasion of the cribriform plate.