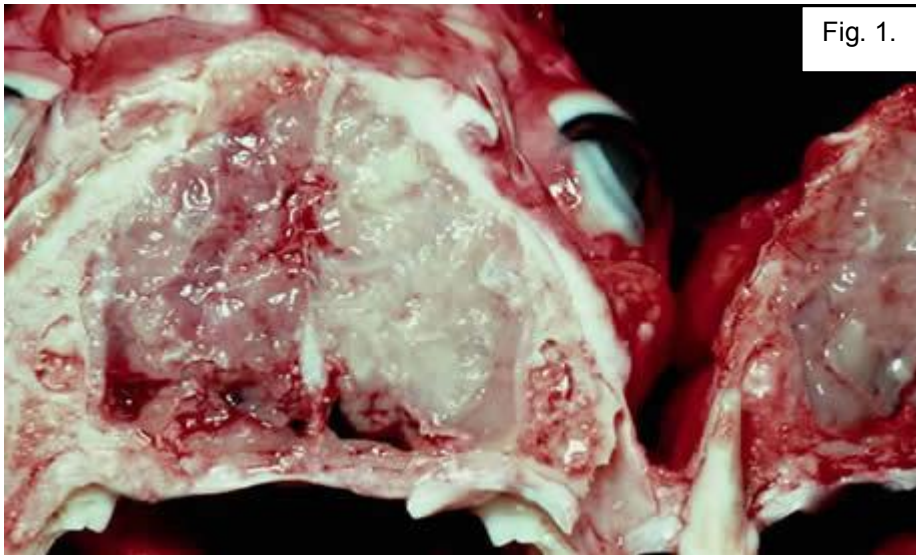


Dear Subscribers,

This diagnostic exercise was sent to ASVP subscribers on December 5th, 2005. Below, I have provided the diagnosis, together with discussion of the case. Feedback etc, welcome at roger-kelly@aapt.net.au

History:

The image is a view of the necropsy dissection of a nine year-old dog that had shown progressive signs of nasal obstruction. Otherwise the animal was quite well. Turbinate loss was apparent on radiography.



1. **Abnormalities** (description): Transection of the nasal cavity (Fig.1) reveals it to be almost filled with translucent fluid of semi-gelatinous appearance. Turbinate profiles are obscured. The overlying right nasal bone is thinned and elevated and the nasal septum is slightly displaced to the right

2. **Disease processes:** Frankly proliferative and exudative processes imply either neoplastic or chronic inflammatory processes, so these two would be preferred over developmental and degenerative processes, notwithstanding that there would undoubtedly be some secondary degenerative changes here.

3. **Pathological diagnostic options:** Intranasal malignancy (eg mucinous adenocarcinoma), or chronic proliferative mucinous rhinitis as caused by *Cryptococcus neoformans* infection. Distinction between these diagnoses cannot be confidently made at this stage of the investigation.

4. **Diagnostic procedure:** Probably the quickest discriminatory test would be to make a wet preparation of an air-dried smear of the goo with a couple of drops of 0.1% toluidine blue under a cover-slip. The advantage of the wet preparation is that it reveals cryptococcal capsules very nicely (see Fig.2), mimicking the old India ink prep. Immediate recognition of the encapsulated yeasts would of course prompt collection of appropriate samples for culture. Moreover, this sort of wet preparation can provide good cytological detail should this have been a malignancy. Unfixed wet preparations stained with basic aniline dyes can reveal as much nuclear detail as can a Papanicolau stain, but of course they do not provide a permanent record and, being unfixed, they present more of a hazard to observers than do fixed preparations.

