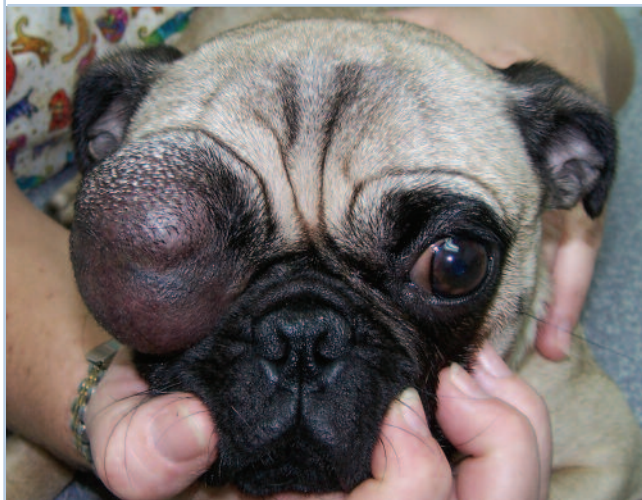


## Clinical Snapshot

#1

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### CASE PRESENTATION

A 9-month-old, female pug in Florida presented with swelling of the right orbit. The dog's globe had been enucleated at an emergency clinic 6 months earlier to treat an infected corneal ulcer secondary to proptosis. The dog was purchased from a pet shop in Florida and had no known travel history. The patient was up-to-date on all vaccinations, and its blood work (i.e., complete blood count and serum chemistry profile) and physical examination results were normal. Following the enucleation, the pet was treated with amoxicillin trihydrate-clavulanate potassium (Clavamox, Pfizer Animal Health) and meloxicam (Metacam, Boehringer Ingelheim) PO for 10 days. The orbital swelling had been present and slowly progressive for 4 months and was tender, painful, and soft when palpated.

1. What should be included on the differential list?
2. What diagnostics should be conducted to confirm the cause of the lesion?
3. What are the treatment options?

(See page 123 for answers and explanations.)

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### ANSWERS & EXPLANATIONS

(Case presentation on p. 120)



1. The differentials for an orbit-occupying lesion following enucleation include seroma, emphysema, fluid-filled cyst, cellulitis, abscess, and neoplasia. Chronic infection leading to an abscess is low on the differential list because of the lack of other systemic findings. In addition, the patient's age and history make neoplasia less likely. The most likely cause of this lesion is a fluid-filled cyst (secondary to lacrimal gland and/or goblet cell secretions) or emphysema (resulting from retrograde air movement through a patent nasolacrimal and/or sinus connection). Orbital emphysema is common in brachycephalic breeds, possibly because a higher pressure exists in the nasal cavity near the exit of the nares or in the narrow airway.
2. At a minimum, the lesion should be aspirated to obtain samples for cytology. A complete blood count is useful to help rule out infectious causes. Ultrasonography and/or radiography of the skull may also be useful to differentiate the lesion as soft tissue, bone, air, or fluid. This particular lesion was confirmed by aspirating 75 ml of air from the orbit.
3. Both fluid-filled cysts and emphysema may resolve with time; however, this is not ideal for uncomfortable or progressive conditions. Orbital exploration is recommended to resolve the condition. If the structure is cystic, all tissue (including remnants of conjunctival and lacrimal tissue) should be aggressively resected and removed. Causes of emphysema can generally be resolved with aggressive scarification and/or ligation of the patent airway. Prophylactic ligation of the nasolacrimal duct at the time of enucleation should be considered in brachycephalic breeds. Aspiration of the lesion and intralesional injection of a sclerosing agent (e.g., the antibiotic oxytetracycline) have reportedly resolved these conditions. This lesion initially failed to resolve following intralesional injection of oxytetracycline but responded to a repeated injection 3 weeks later in conjunction with a pressure bandage that was applied for 1 week.

### RECOMMENDED READING

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