

Attachment

CASE REPORT ON PUNTUNG

Signalment

Puntung is a 20 plus year-old, female Sumatran Rhino weighing 508 kg. She is kept alone in a captive environment and is being fed with cut browse and access to water ad lib. She has access to natural mud wallow and roofed shelter.

History

She was presented with a history of infraorbital swelling of the left maxilla since March 2017 that had turned into a ruptured abscess. The open wound was treated with antiseptic and she was given parenteral antibiotic and anti-inflammatory. The wound did not improve during treatment. The open wound became overgranulated with pus present when pressure is placed around the swollen area. Appetite had slight reduction with slight loss of body weight.

Clinical examination

Rhino had a body score of 3/5. She had an infraorbital open wound (5cm diameter) with granulomatous appearance, firm upon palpation. The eye behind the granuloma lesion was swollen periorcular with unilateral epiphora. Vision for both eyes were normal. Blood tinge with clear nasal discharge was present unilateral on the same side of the swelling. She was using her right jaw predominantly for mastication. Other body systems were normal.

Diagnostic test

Complete blood cell count (CBC) and chemistry panel were unremarkable. Bacterial sensitivity test showed resistance to Amoxicillin-Clavulanate acid but susceptible to Enrofloxacin and Cephalosporin drugs.

X ray was done on the 19th April 2017 under sedation prior dental operation showed radiolucent area surrounding 2nd and 3rd maxillary cheek teeth and radiopaque fragment dorsal to 3rd maxillary cheek teeth. The radiolucent area seems to be connected to the paranasal sinuses which could indicate a fistula and the radiopaque fragments indicate alveolar bone fracture involvement.

Diagnosis

From radiography, Puntung had a periodontal disease of the left upper third cheek teeth. The alveolar bone was fracture and calcified granuloma surrounded the lesion. Oro-nasal fistula might be involved.

--

Treatment

Pre Operative

Dexamethasone, Augmentin (Amoxicillin+Clavulanate Acid), Lactated Ringer Solution, Dextrose, Duphalyte, Vitamin K, Iron supplement(Sangobion), Phenylbutazone

Peri Operative

Flunixin meglumine, Enrofloxacin

Anesthesia for dental extraction

Sedation: Medetomidine, Butorphanol

Induction: Ketamine, Midazolam

Maintenance: Triple Drip(Ketamine, Butorphanol, Midazolam)

Revival: Atipamezole, Naltrexone

3 Cheek teeth (1st, 2nd and 3rd cheek teeth) had been extracted. It was difficult to determine for oro-nasal fistula as the surgeon was unable to reach through the alveolar opening.

Post Operative

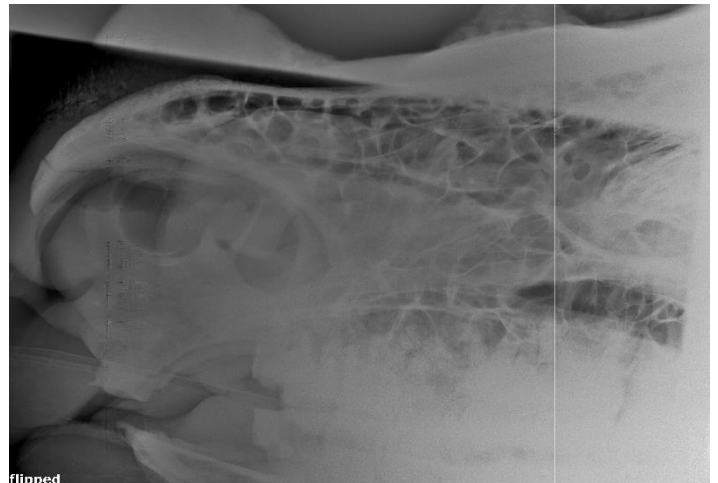
Phenylbutazone, Enrofloxacin, Ceftiofur, Oral Mouth Rinse

Outcome

Puntung went back to her normal appetite after 30 minute post recovery from anesthesia. Treatment was continued with wound cleaning, mouth wash and parenteral enrofloxacin SID every other day. The open wound and nasal discharge still persist. Antibiotic was changed to Ceftiofur day 8 post dental extraction. Epiphora still persist suspected to naso-lacrimal tear duct obstruction. Her bodyweight had increased to 512kg day 7 post-operative. The intraoral granulation tissue (gingiva) has subsided with improvement.



Infraorbital open wound with granulomatous appearance



Radiolucent connection between 3rd alveolar space and the paranasal sinus



Extracted teeth; 1st, 2nd and 3rd cheek teeth