

POST MORTEM REPORT

DATE: 04 June 2017

TIME: 7.00 am

ID: Puntung

SPEIES: *Dicerorhinus sumatrensis*

SEX: Female

AGE: ≥ 30 years

HISTORY:

Periodontal abscess of left cheek teeth (Molar 1, Premolars 2 and 3), with aberrant granulation of surrounding tissues. Diagnosed with a case of squamous cell carcinoma (SCC) that is spreading aggressively (Plate 1). Puntung was subsequently euthanized as she became worse with bleeding from her right nostrils and gasping for breath occasionally. She was anesthetized with detomidine and ketamine and finally with pentobarbitone (Plate 2).

POST MORTEM: (see photos in Appendix 1)

Skin and integumentary – Skin around the open wound is edematous and swollen. Several open wounds around lesion (1cm to 7 cm). The SCC is 21 x 30 cm. The swelling extended ventral and dorsal to the eyes (Plate 3 – 4). Granulation/SCC is also visible around the site of the extraction (Plate 5).

The entire left eye was shut as a result of the expanding SCC and granulation tissues.

Gastro intestinal tract – Hydroperitoneum (clear fluid in peritoneum) was observed. The remaining molar 2 and 3 have enormous amount of callus around them (Plate 6).

Lungs – No significant findings.

Heart – No significant findings.

Liver – Moderately congested

Kidney – Moderately congested

Spleen – No significant finding

Muscular Skeletal system – Most of the articular surfaces or brim of long bones (shoulder joint, elbow joint, knee joint) shows marked erosions. A hairline fracture of the articular surface of the right knee was apparent (Plate 7 – 10).

Degenerative changes of part of the muscles around the left upper and lower jaw is apparent. The coloration of these muscles compares clearly to the normal muscles on the opposite jaw. The muscles involved are mainly the ventral masseter (Plate 11).

Reproductive tract – There were numerous cysts, measuring 3 – 15mm in the cervix, uterine body and horns (Plate 12).

CAUSE OF DEATH:

1. Euthanasia.

FINAL DIAGNOSIS:

1. *Euthanasia*

DISCUSSION:

The SCC, together with the aberrant granulation expands very significantly to involve the other anatomical structures surrounding the left jaw. The musculature, particularly the masseter muscles were markedly involved with the resultant degenerative changes. These would affect the movements of the jaw and related structures and possibly paralyze the jaw movement. The left nostril was almost completely blocked due to the expansion of the SCC/granulation tissues. Similarly, the larynx was affected resulting in her unable to vocalize. The left eye was complete closed due to the edema and blockage of the lacrimal duct. There were also major glands (particularly parotid, sublingual and mandibular salivary glands) in the vicinity which are affected. The extraction which was successful still had remnants from the maxillary bones. The site healed but had several gaps which showed aberrant granulation. The remaining two molars of the upper left jaw showed severe callus formation. The lower left jaw also showed callus formation and significant erosions as compared to the right. These factors indicate that the problem would recur no matter how long the treatment regime is continued.

Most of the articulating surfaces of the joints showed obvious erosions and one hairline fracture of the right elbow joint. These were caused by the weight shifting due to the snare wound that she had when still a calf. The result of the erosions would have been extreme pain as it impact the articular surfaces.

The numerous number of cysts of various sizes inside her uterus is more severe than the images seen during ultrasonography.

VETERINARIANS:

Dr. Zainal Zahari Zainuddin, Dr. Reza Tarmizi
Borneo Rhino Alliance, Sabah



Plate 1. Puntung with the squamous cell carcinoma



Plate 2. Veterinarians performing the euthanasia



Plate 3. The swelling from outside

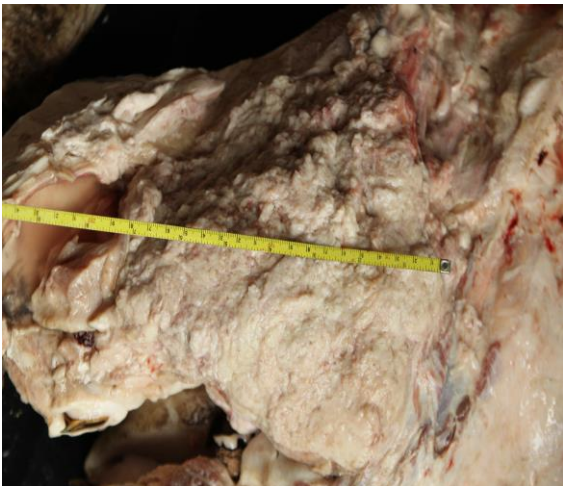


Plate 4. A part of the squamous cell carcinoma



Plate 5. The SCC at the site of the teeth extraction



Plate 6. The remaining upper molars with callus (arrow)

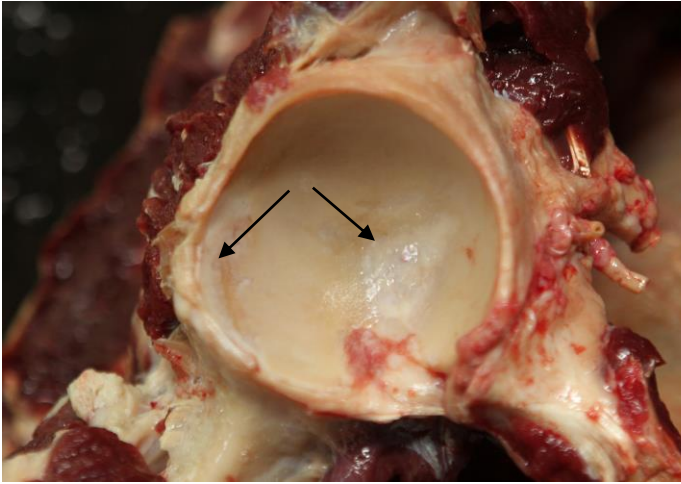


Plate 7. The erosions inside the knee joint (arrow)

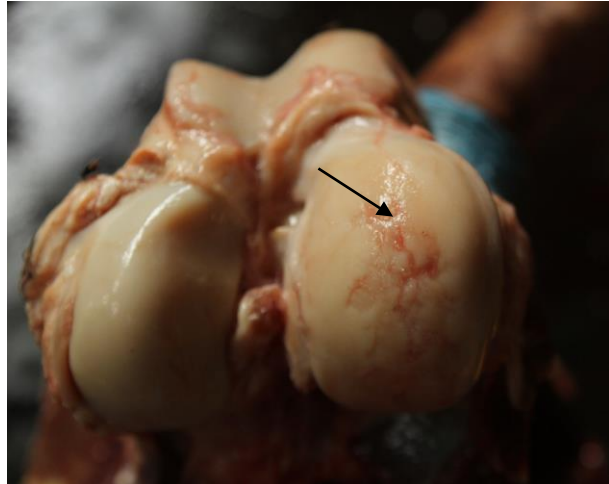


Plate 8. The erosions on the articular surface (arrow)

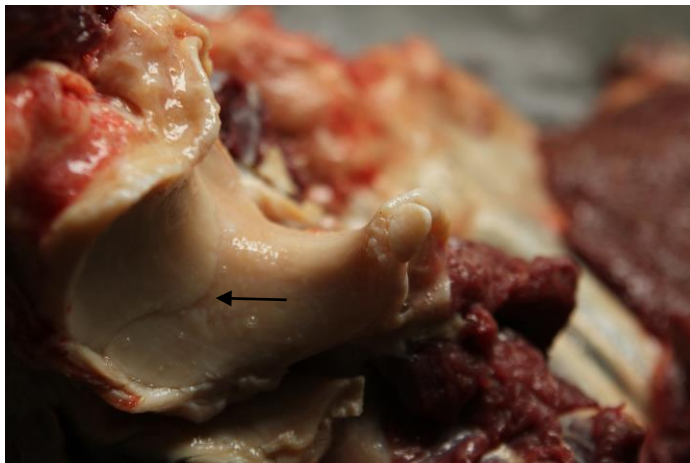


Plate 9. The hairline fracture inside the elbow joint (arrow)

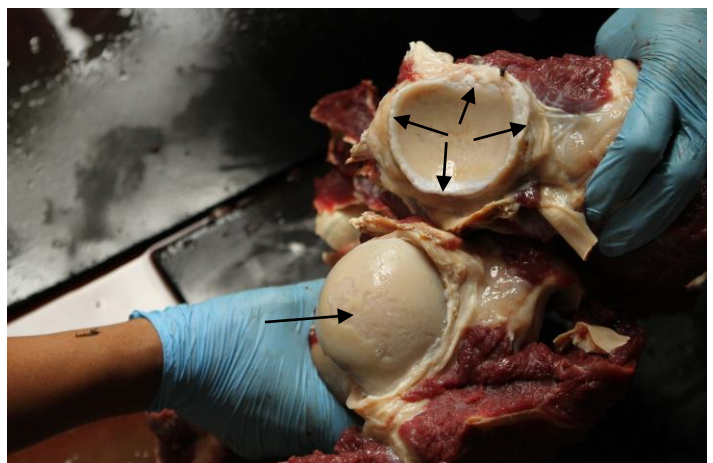


Plate 10. The erosions inside the knee joint



Plate 11. The lower jaw showing muscle degeneration (arrow) on the left cheek



Plate 12. The uterus showing numerous cysts