Affection of Teeth (5th theory surgery) lecture 2

Dr. khalaf H.A. El-Budari

Dentistry:

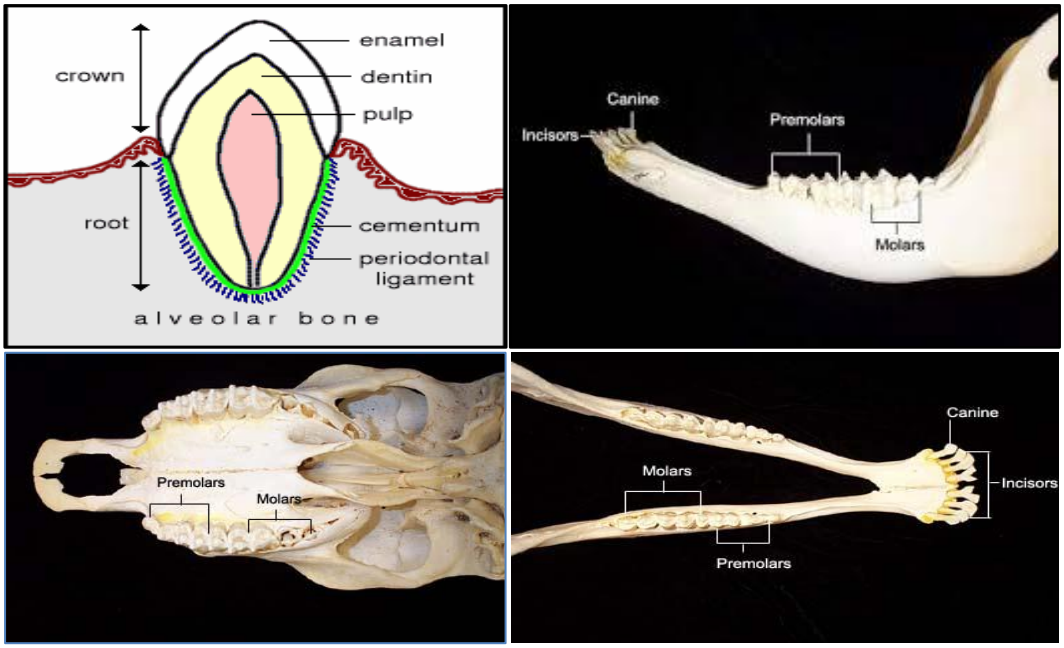
It is the art and science of prevention, diagnosis, and treatment of conditions, diseases, and disorders of the oral cavity, the maxillo-facial region, and its associated structures as it relates to animals.

Anatomical considerations

The tooth is hard, white or yellowish white structures located in the alveoli of bones of the jaw. In animals, tooth is the mastication organ and is of two types: temporary tooth and permanent tooth.

The temporary of primary tooth during growth of the animals, a tooth is composed of a portion above the gum line called **crown** and a section below the gum line called the **root**.

Enamel: Calcified tissue covers the crown of the tooth, which is hardest to protect the sensitive tissue of the tooth.



Dentin: softer than enamel, makes up the bulk of the teeth and is formed by odontoblasts that line the hollow chamber in the center of the tooth.

Pulp: extends from the crown into the root of tooth. Inside the pulp is composed of live tissue, which contains nerves, blood vessels and lymphatics.

Cementum: This is attached to the periodontal ligament that covers the root.

The name of teeth according to location: Incisors, Canines, Premolars and Molars.

Common clinical signs of dental disease

1. Difficult in mastication.
2. Weight loss.
3. Unilateral or bilateral nasal discharge.
4. Malodorous breath.
5. Swelling over the dental area.
6. Drainage from a fistula or sinus.
7. Sinusitis.
8. Reluctance to drink water.
9. Chewing of food on one side with tilting of the head.
10. Passage of a masticated food in feces.

Diagnosis of dental disease

a. Oral examination

b. Radiography

c. Endoscope if there sinusitis

d. Clinical signs

Supernumerary Teeth (polydentia):

A congenital condition leading to dental crowding is usually in incisors.

Clinical signs:

1- Malocclusion.

2- Gingivitis.

3- Prehension difficult.

4- Ulceration of tongue.

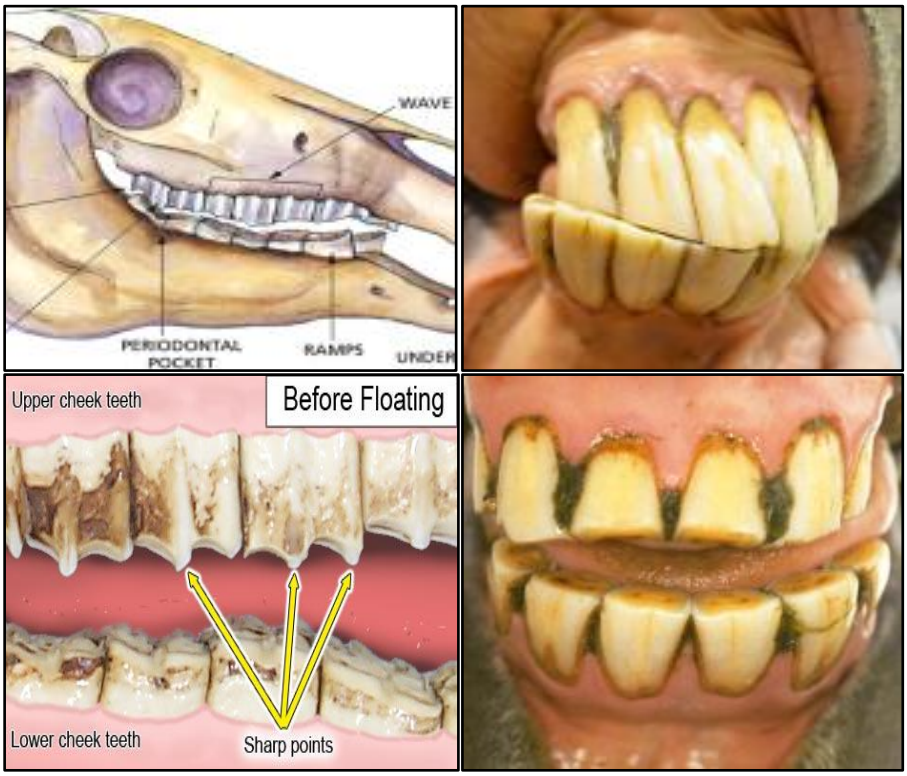
Treatment: Extraction of these teeth.

Oligodontia:

It is a congenital absence of tooth or retention and inclusion of a tooth with in the jaw.

<u>Sharp teeth</u>

This condition is occurring due to irregular of teeth leading to painful lesion of buccal mucosa or tongue and cause disorder of mastication. The upper jaw is wider than the lower jaw and chewing occurs in a mostly sideways-circular motion. This can lead to sharp edges on the outside of the upper cheek teeth and the inside edges of the lower cheek teeth.



Clinical signs

1. Pain mastication.
2. Ulceration of buccal mucosa or tongue.
3. Prolong food intake.
4. Bad mouth odor.
5. Unchanged grain in feces.

Treatment: rasping.

Dental caries:

Decalcification of the hard tooth substance involving crown or root, may be superficially carries or deeply or penetrating to opening of pulp cavity leading to capitation of tooth. Cariogenic bacteria that produce acid from carbohydrate fermentation and in addition proteolysis enzymes of different kinds of bacteria both destroyed and attack organize substance of tooth.

Also defiance of fluorine play important role of this disease.

Clinical signs:

1. Brown to grayish brown or black discoloring.
2. Pain.

Tr.: Removal of brown substance then filling the cavity with insert substance e.g. : amalgam

Dental amalgam: is a dental filling material used to fill cavities caused by tooth decay.

Dental amalgam is a mixture of metals, consisting of liquid (elemental) mercury and a powdered alloy composed of silver, tin, and copper.

Dental tartar (calculus):

Deposition of material on tooth surface which acts as basis for tartar formation

Causes:

Calcified of material by mineral salts of saliva especially phosphate, calcium and magnesium carbonates and organic substance.

Tartar does not cause any clinical signs unless it involves the gingival border in which case primary marginal gingivity may cause separation between gum and tooth, leaving a hollow to collect fecal particles lead to periodontal disease.

Clinical signs:

a. fowl smelling

b. yellow debris (or black , brown) packed

c. gingivitis

Treatment:

removal of tartar by tooth scalier.

removal by H2O2 1:5 mouth wash.

HCL 1:100 mouth washes.

Alveolar periostitis

A condition sometimes occurring after tooth extraction, particularly after traumatic extraction, resulting in a dry appearance of the exposed bone in the socket, due to disintegration or loss of the blood clot. It is basically a focal osteomyelitis without suppuration and is accompanied by severe pain (alveolalgia) and foul odor.

The alveolar periosteum is a vascular layer of connective tissue that attaches the embedded part of the check tooth to the alveolus. Inflammation changes in the area with secondary bone enlargement, fistulation and sinusitis.

Causes:

1- The most common routes of infection include entrance of food material and resultant of infection through the gum and tooth.
2- Association with fractured of tooth.

Clinical signs: typically consist of firm circumscribed swelling on the side of the face to the lateral surface of the mandible.

Treatment:

1- Antibiotic.

2- Extraction.

Tooth extraction:

The goal of equine dentistry is to preserve teeth whenever possible, but sometimes that broken or rotten tooth just has to go before it causes more problems such as infection of the sinuses or jawbone. However, before deciding to extract a horse's tooth, owners and veterinarians must consider a number of important factors:

- To help the horse achieve optimal mastication (chewing);
- To enable the horse to maintain a healthy weight;
- To support the horse's performance;
- To prevent oral pain and pathology (tissue damage); or
- To treat oral pain and pathology.

Indication of teeth extraction:

1. Dental fistula originating from the root of an infected cheek tooth.
2. Sinusitis associated with diseased maxillary cheek tooth.
3. Fractured tooth with septic alveolar periostitis and osteomychitis.
4. Neoplasia, abscesses or fractures of the mandible or maxilla.

Control animal under general anesthesia or sedative or local anesthesia, an antiseptic solution is used to flush the oral cavity and remove any food particles.

A dental extractor is placed on the tooth and lateral to medial motion applied. When the tooth loosens in the alveolus, there is a sucking noise and rotary motion may then because to help elevate the tooth following removal any debris show be removed from the socket, but the clot is left undisturbed. The cavity is flushed and a gauze pack inserted. This may be replaced with dental wax.