

## **Trephining**

Trephining is the traditional approach for surgical access to the paranasal sinuses (frontal sinus, maxillary sinus). The trephines range in size from (0.6 cm; 1.25 cm; 1.9 cm; 2.5 cm), the size of the trephine selected depends on the intended purpose of the opening.

### **Indication**

- 1-it is useful for diagnostic to the sinuses
- 2-it is useful for therapeutic access to the sinuses
- 3-chronic inflammation of the sinuses due to equine influenza and strangles.
- 4-dental diseases that require extraction
- 5-malignant tumor

- **Sinusitis**: refers to inflammation or infection of one or more of the paranasal sinuses, and is the most commonly encountered disease of the paranasal sinuses. It is classified as either primary or secondary, and acute or chronic.

### **Clinical signs**

1. Facial bone distortion
- 2-unilateral facial swelling of affected sinus
3. Unilateral nasal discharge from affected sinus.
4. Obstruction of air ways.
5. Unilateral lacrimal discharge (epiphora).
- 6-Intermittent hemorrhage from the nose
- 7-Coughing
- 8-Head shaking

### **technique**

The trephine opening for the so-called “modified frontonasal bone flap technique” (which in fact is a trephine opening) is centered 5 cm axial to the nasal lacrimal duct, 4 cm lateral to the nasal midline, and 2 cm below a

horizontal line between the medial canthi. The nasal lacrimal duct can be identified by a line from the medial canthus to the incisive notch. A curved incision is made through the skin and periosteum and reflected from the bone as one. A 5-cm skull trephine is used to make the opening into the conchofrontal sinus. As with other trephinations, the bone disc is discarded. As mentioned before, the skin flap should be larger than the size of the trephine hole in the bone. Leaving a 10-mm to 15-mm margin of skin is even more important for skin closure and cosmetic results using this technique than when using small trephine openings.

### **Postoperative care**

1-anti-inflammatory drugs

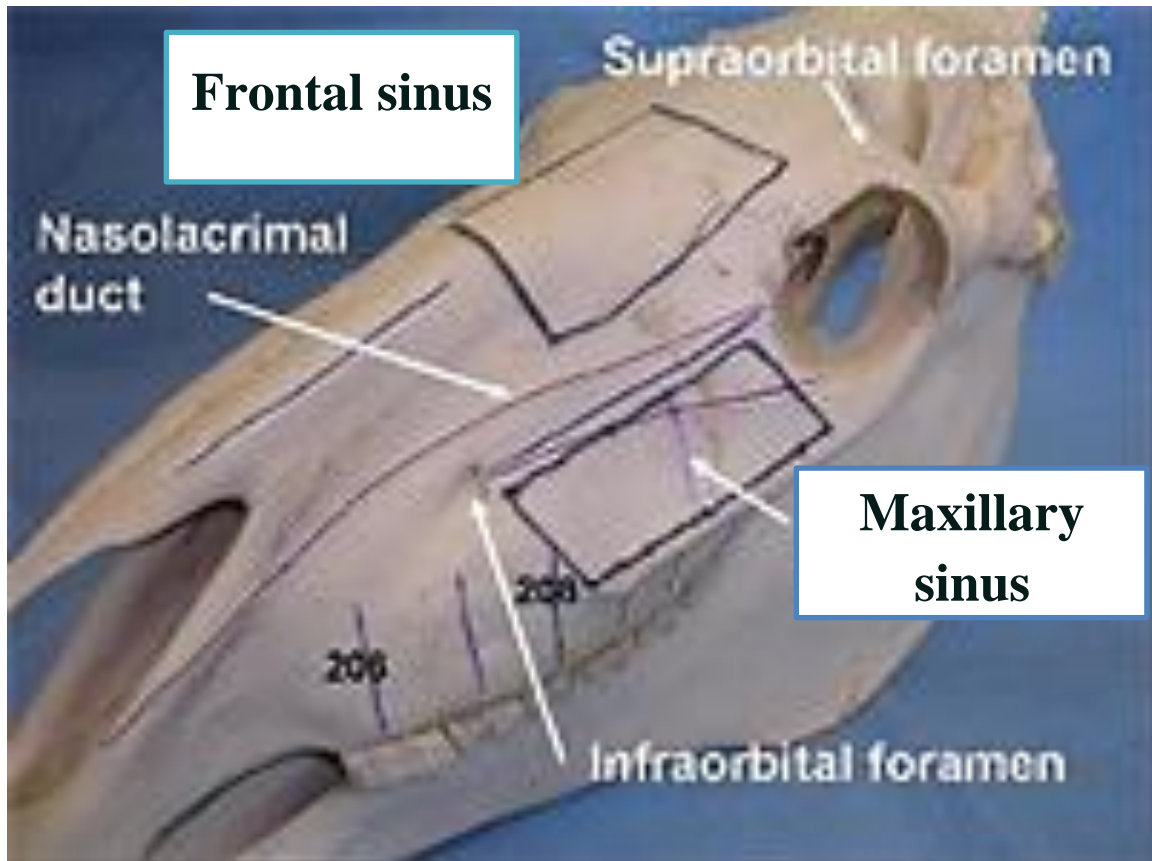
2-systemic antibiotic

3-Tetanus prophylaxis.

4-Covering the trephine opening with gauze saturated with nitrofurazone solution.



## trephine instrument



Site of opening in frontal and maxillary sinuses