



Equine parietal bone harvesting

Version 1

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ABSTRACT

This is the procedure carried out to extract beam-like specimens from the parietal bone of horse skull.

PROTOCOL STATUS

Working

We use this protocol in our group and it is working

GUIDELINES

The general procedure is divided in different phases:

- Braincase extraction
- Sample cutting
- Sample storage

MATERIALS TEXT

Vertical band saw, scalpel, ruler, pencil, saline solution 90%, steril gauze.

SAFETY WARNINGS

Throughout the whole process you should wear:

- Latex gloves or similar
- Safety goggles
- Lab coat
- Disposable apron

BEFORE STARTING

- At least two people should be involved in the first part of the process.
- The horse skull(s) should be thawed at 4°C for at least 24 hours before the procedure.

Braincase extraction

1



In a room at

Cutting of the brain case from a horse head

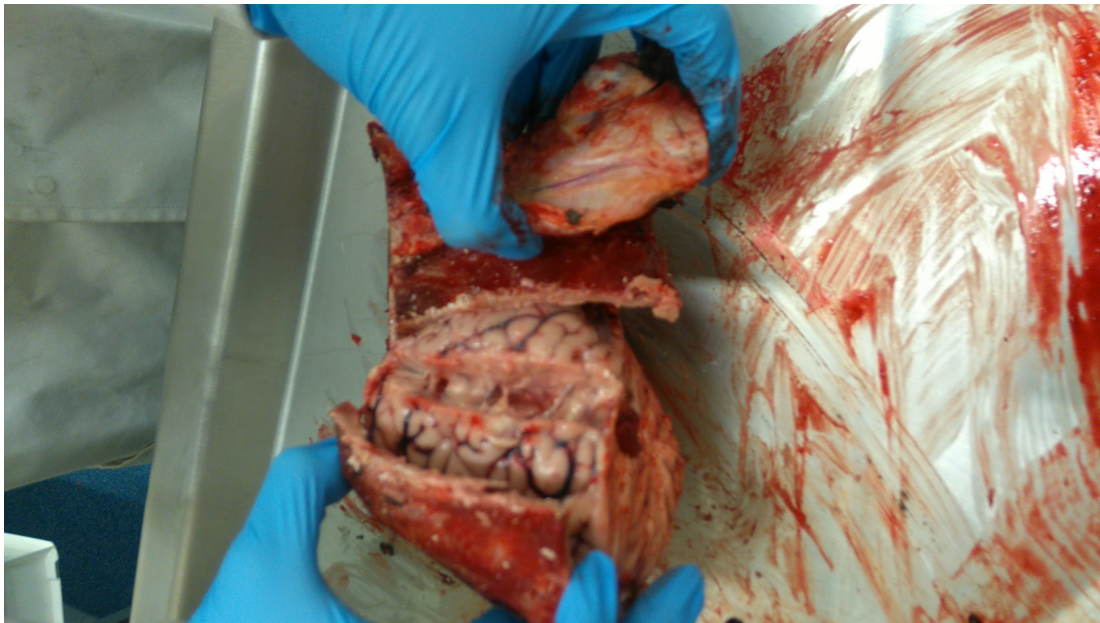
22°C:

- Carefully place the horse head in the vertical band saw
- Cut the section that encloses the braincase: from the occipital bone to the beginning of the frontal bone.
- Permanently irrigate the bone with saline solution.

At least two people should be involved in this part of the process

Braincase defleshing

2



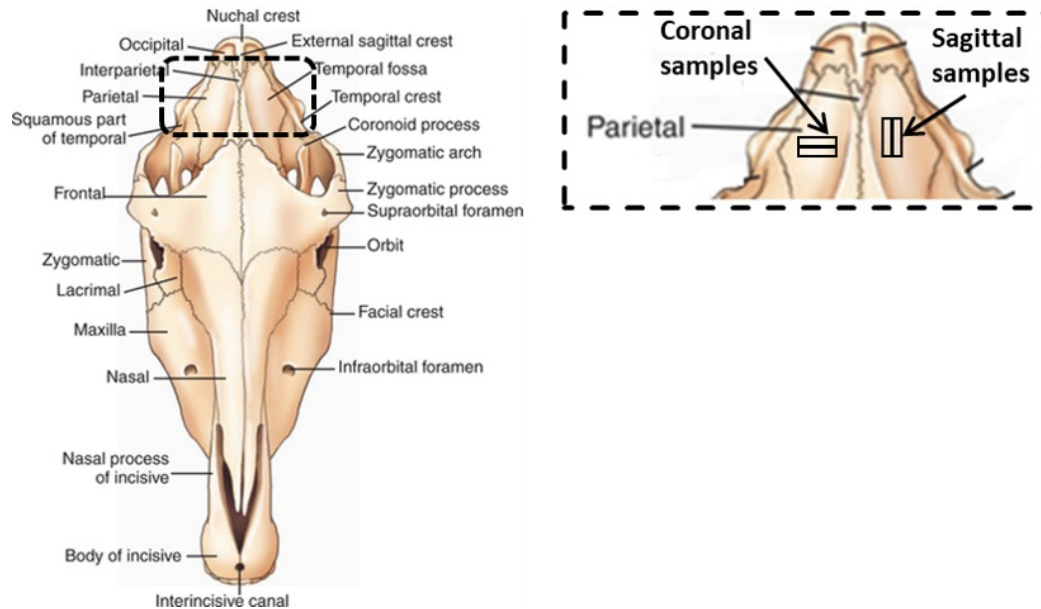
In a room at

22°C:

- Using a scalpel, carefully remove soft tissue removed from the bone.
- Remove the soft organs attached to the inner surface of the bone (brain, cerebellum, dura mater, etc.).
- Permanently irrigate the bone with saline solution.

Pre-sampling template

3



Horse Braincase (left) and Sample template drawing in the parietal bone (right)

- With the pencil,

draw a square upon the parietal bone of the skull. The dimensions should cover the surface of at least one rectangular sample: 52 mm * 12 mm (taking into account the thickness of the saw).

Note: alignment of the sample template should be done according to the direction to test.

- The rectangle size will change according to the number of samples to cut.

Sample cut

4



- Align the skull

so the vertical band saw is perpendicular to the surface to cut.

- Carefully cut the individual sample following the pattern previously drawn, letting the saw go all the way through the thickness.

- Permanently irrigate the bone with saline solution

Sample storage

5

- Wrap individual samples in gauze sodden with saline solution.

- Store at 4°C.



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