THE SUPRATROCHLEAR FORAMEN IN DOGS AND IBERIAN WOLVES HUMERI: TO HAVE OR NOT TO HAVE

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The supratrochlear foramen (STF) is an anatomical feature of the canine humeri, that communicates the radial and olecranon fossae and may or may not be present.

Aims: to describe STF prevalence and morphometry in different sized humeri from dogs and Iberian wolves.

Materials and Methods: Unpaired humeri from 52 dogs and 70 lberian wolves were measured twice by two independent observers, using a digital caliper. These materials integrate the osteological collections available at LARC-DGPC and

MUHNAC-ULISBOA. **Dog humeri** were categorized into small (≤10cm) and medium/large (10,3-22,3cm) according to its maximum length; **Wolf humeri** length ranged between 18,0-22,8cm.

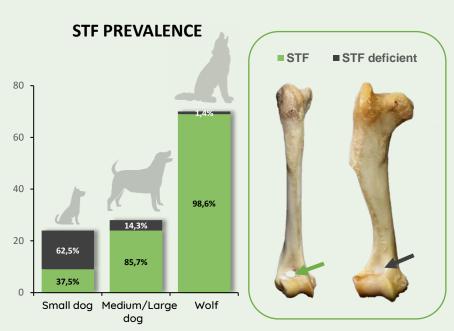


Results:

- **STF deficiency:** 62,5% (15 of 24) of small dog humeri and 14,3% (4 of 28) of medium/large dog humeri were STF deficient, and only 1,4% of wolf humeri (1 of 70) didn't exhibit STF.
- STF presence: When present, STF longitudinal and transverse lengths were inferior in small dogs humeri (3,23±1,61mm and 3,63±1,58mm) compared to medium/large dogs (5,24±2,37mm and 6,20±2,18mm), and the ratio between both lengths was similar in small (1,17±0,18mm) and medium/large (1,25±0,23mm) humeri.
- **STF across species:** In wolves, STF longitudinal and transverse mean length was 9,90±1,94mm and 10,73±1,55mm, respectively. In dogs (76%; 25 of 33) and wolves (65%; 45 of 69) an oval-shape STF, with a longer transversal axis, was more common than round-shape.
- STF anatomical position: STF margin distance to the medial epicondyle was greater than the distance to the lateral epicondyle in small dog (11,62±1,66mm vs 7,93±1,59mm), medium/large dog (21,02±6,29mm vs 13,88±3,76mm) and wolf humeri (23,63±2,14mm vs 13,96±1,46mm).

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Conclusions:

- STF occurrence and size is variable in dogs and wolves.
- Dogs: small humeri displayed STF deficiency or small size STF more frequently than medium/large humeri.
- Iberian wolf: STF absence was rare and less variable in size.
- The most frequent shape of STF was oval and it was closer to the lateral epicondyle, where canine humeral condylar fractures are predominant.

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