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Patellar fractures in cats

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The results of a survey on patellar fractures in cats were published in 2009 (Langley-Hobbs 2009) following a request for cases in a letter in *Veterinary Record* (VR, March 19, 2005, vol 156, p 392). A concurrent study in North America is ongoing.

From having access to information on over 150 patellar fractures some interesting findings have been discovered about this unusual condition. Transverse patellar fractures (Fig 1) most commonly occur in young cats (one to three years old) with over 50 per cent of cats subsequently fracturing the contralateral patella, usually within three months of the first fracture. Up to 75 per cent of these affected cats have deciduous teeth (cheek and/or canine) (Fig 2) persisting beyond six months of age. This syndrome is suspected to be a variation of osteogenesis imperfecta. Other concurrent pathologic atraumatic bony lesions include pelvic, humeral, femoral, tibial and fibular fractures, as well as coxofemoral luxations (Langley-Hobbs and others 2009). While surgical correction would seem appropriate for these patellar fractures, failure after pin and tension band was reported in 86 per cent of patients in a retrospective report (Langley-Hobbs and others 2009).

Together with Steven Bailey, in the USA, I (Sorrel J. Langley-Hobbs) am currently in the process of collecting cheek swabs and/or blood samples (if blood is already being collected as part of the clinical investigation) from affected cats. DNA will then be stored at the University of Pennsylvania by Margret Casal. As soon as a sufficient number of samples have been obtained, Leslie Lyons will conduct a genome-wide association study.

If any colleagues have seen a cat with patellar fractures and retained deciduous teeth they can e-mail me at the address below. I can supply swabs, a short form to complete with details about the cat, and will then arrange for the samples to be shipped to the USA.

References

- LANGLEY-HOBBS SJ. Survey of 52 fractures of the patella in 34 cats. *Veterinary Record*. 2009; 164:80–86. [PubMed: 19151405]
- LANGLEY-HOBBS SJ, BALL S, MCKEE WM. Transverse stress fractures of the proximal tibia in 10 cats with non-union patellar fractures. *Veterinary Record*. 2009; 164:425–430. [PubMed: 19346541]

FIG 1.
Transverse patellar fractures in a cat

FIG 2.
Deciduous teeth in a cat older than six months