Dear Sir,

I would like to report an interesting case of a two-year-old, female, spayed Bengal cat with a lesion similar to osteochondritis dissecans (OCD) of the medial femoral condyle with concurrent distal femoral varus, medial patella luxation and hip dysplasia. The cat was presented with an intermittent, mild left hindlimb lameness, which the owner reported to be associated with an audible ‘click’. Clinical examination was unremarkable other than luxation of the left patella with flexion of the stifle and concurrent internal rotation of the tibia which spontaneously repositioned with stifle extension. An effusion of the left stifle, and signs of mild resentment to extension of the coxofemoral joints bilaterally were also present. Palpation of the right stifle was unremarkable. Under general anaesthesia plain radiographs of the pelvis revealed mild bilateral hip dysplasia with very early signs of osteoarthritis. Orthogonal radiographs of the left stifle revealed a well-defined, smoothly-marginated mineral opacity within the craniomedial aspect of the intercondylar notch 3 mm x 1 mm in size, distal femoral varus, a medially positioned patella within the femoral trochlear, and new bone formation on the distal pole of the patella. (Fig. 1). Orthogonal views of the right stifle revealed distal femoral varus and a fine mineralised streak in the craniomedial aspect of the intercondylar notch. The right patella was positioned centrally in the femoral trochlear. Arthroscopy of the left stifle using a 1.9 mm arthroscope via a standard craniolateral scope portal and craniomedial instrument portal (which doubled as an egress portal) demonstrated subjectively that the femoral trochlear was shallow by comparison with the width of the patella, and there was visible medial patella luxation evident with flexion of the stifle although there were no articular cartilage erosions within the femoropatellar joint. Assessment and palpation of the structures of the femorotibial joint revealed normal cruciate ligaments, normal menisci and a normal outline of the articular femorotibial surface of the femoral condyles medially and laterally. However a full thickness 4/5-modified Outerbridge erosion approximately 3 mm in width was present on the axial border of the medial femoral condylar notch (Fig. 2A). During the examination, a well-defined osseous fragment floated free from the instrument portal (Fig. 2B). The fragment was submitted for histopathology which found the section to be composed of dense aggregates of fibrocartilage, within which there was extensive endochondral ossification present as well as poorly organised chondrocyte columns present towards the periphery of the tissue, many of which were organised in dense, irregular clusters towards the articular surface. There was irregular mineralisation of the chondroid matrix supporting these clusters of chondrocyte columns; this was consistent with an osteochondral fragment associated with OCD of the medial femoral condyle, but could also have been consistent with intra-articular ossification of soft tissues such as the fat pad.

At this stage it was unclear as to whether this fragment or the patella luxation was the cause of the lameness and so the wounds were closed and the cat discharged with instructions given to the owner for rest and oral meloxicam 0.1 mg/kg was dispensed. The wounds healed uneventfully, however the owner reported that the lameness persisted and thus two weeks later, the cat was anaesthetised and a tibial tuberosity transposition and a lateral fascial imbrication were performed. Postoperative radiographs after the tibial tuberosity transposition demonstrated a smaller mineralised.

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opacity in a similar position to that which had been previously described, but further attempts to remove or explore this were considered unnecessary. The cat was discharged with instructions for rest and oral meloxicam and six weeks later the lameness had resolved with normal patella function palpable in the left stifle.

Osteochondritis dissecans of the lateral femoral condyle and of the humeral head have been previously described in cats. However the significance of this free fragment as a cause of lameness cannot be determined from this case, neither is it possible to say definitively that the lesion was OCD, albeit that the histopathology was suggestive of this (1, 2). There was no femoral articular surface erosion present from whence the fragment may have come as in the case described by Ralphs (1). There was however an erosion on the axial surface of the medial femoral intercondylar notch that may have been caused by the fragment, and which may have occurred due to dystrophic mineralisation of the fat pad, or it may have represented the lesion bed of a true OCD fragment. The radiographic images taken after the second surgery showed the presence of a mineralised structure after the previously described fragment had been removed. A review of the preoperative radiographs did not demonstrate two fragments and so we can only speculate as to whether it was present at the time of the first surgery or not, as radiographs were not taken after the arthroscopic fragment removal. The concurrent hip dysplasia, patella luxation and femoral varus are of interest as it is possible that some form of osteochondrosis has been responsible for the hip dysplasia and femoral varus, and hence the patella luxation and OCD type lesion. Indeed Smith et al speculated there could have been a weak association between hip dysplasia and medial patella luxation when they occur in conjunction in cats (3). I would be interested in the opinions from others, and to hear if similar cases have been seen elsewhere.

A video of the arthroscopic exam can be found online on YouTube as a favourite on the ‘VCOT’ channel as well as on the ‘Ridgevetscope' channel. Alternatively, there is a link to the video at www.VCOT-online.com.

References