CASE STUDY

RADIOGRAPHIC AND CT EVALUATION OF A 7 MONTHS OLD LABRADOR RETRIEVER WITH A FRAGMENTED CORONOID PROCESS PERFORMED AT ØSTERGAARDS VETERINARY HOSPITAL, TRANBJERG

INTRODUCTION

Elbow dysplasia in the dog is a relatively common condition in young growing dogs, in one study the incidence reported was 17,8 % (1). The term elbow dysplasia covers several separate disorders, including Ununited anconeal process (UAP), Osteochondritis dissecans (OCD), fragmented coronoid process (FCP) and incongruity of the joint (Inc) (2). The proposed etiology of elbow dysplasia is either osteochondrosis (3) or elbow incongruity (4).

CASE

This is a case of a young male Labrador with weight bearing lameness with a duration of a few months. The dog showed typical signs of pain associated with elbow disease, i.e. abduction of the elbow, slight swelling of the joint and pain upon palpation / manipulation.
Standard radiographs were taken in latero-lateral and cranio-caudal projections (fig 1). These showed arthrosis, and the presumptive diagnosis of FCP was made.
The diagnosis was confirmed with CT scanning, where the lesion became easily visible (fig. 2).
The lesion was treated arthroscopically the following week.

1) JP Morgan, A Wind, and AP Davidson (1999) Bone dysplasias in the labrador retriever: a radiographic study. Journal of the American Animal Hospital Association: July/August 1999, Vol. 35, No. 4, pp. 332-340.
2) www.vet-iewg.org/joomla/index.php/archive/23-2001-international-elbow-protocol-vancouver
3) Olsson S-E. The Early diagnosis of fragmented coronoid process and osteochondritis dissecans in the canine elbow. J Am Anim Hosp Assoc 1983; 19; 616-626
4) Wind AP: Elbow incongruity and developmental elbow diseases in the dog: Part I. J Am Anim Hosp Assoc 22: 711-724, 1986

CONCLUSION

This case clearly demonstrates the use of CT scanning in cases where no definitive diagnosis can be made with standard radiographs. One could argue, that CT scanning is superfluous in this instance due to the fact that diagnosis and treatment can be made arthroscopically. However, the arthroscope can only visualize the joint surface so in rare cases, one could miss subchondral bone lesions that do not extend into the joint.

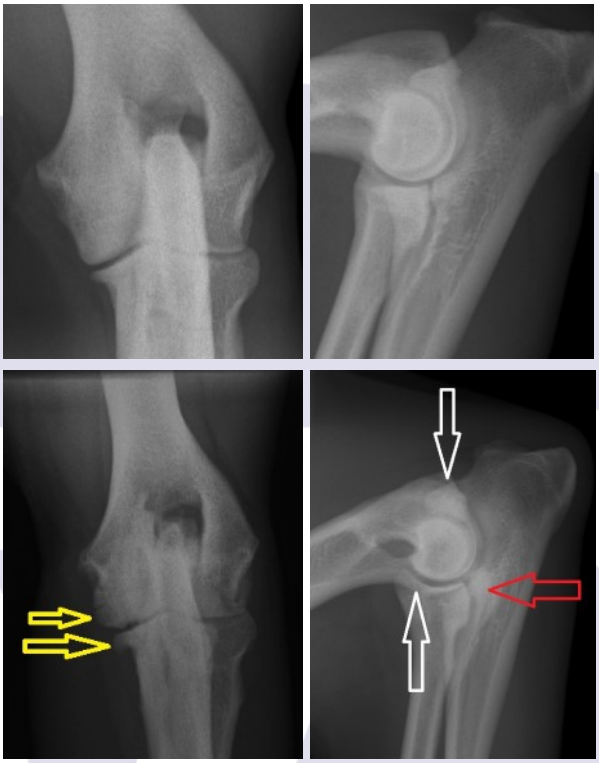

Fig. 1 Top: Standard lateral and craniocauda radiographs of the normal elbow on the contralateral side. Bottom: Standard lateral and craniocaudal radiographs of the affected elbow . On the lateral radiograph, note the subchondral bone reaction (red arrow) and the abnormal shape of the radial head and anconeal proces (white arrow). On the Cranio-caudal view, note the periostal bone reaction (osteophytosis) of the medial side of the joint. (yellow arrow)

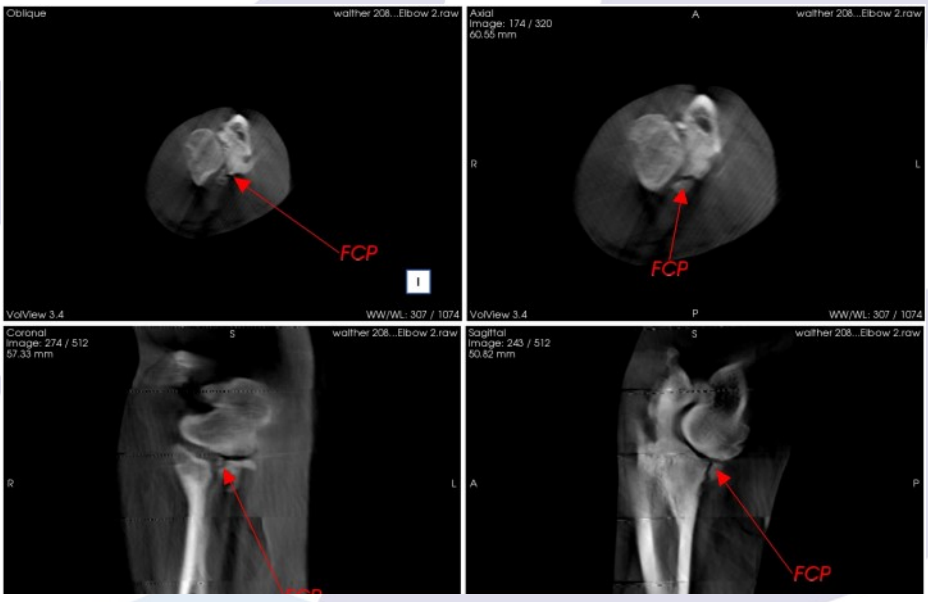

Fig 2. CT scan of the same elbow shown in fig. 1. Note the evident fragmentation of the coronoid process

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