

EVALUATING AND MONITORING DOGS WITH OSTEOARTHRITIS IN PRACTICE

John F. Innes
 BVSc PhD CertVR DSAS(orth) MRCVS
 Department of Musculoskeletal Biology, University of
 Liverpool, UK
 j.f.innes@liv.ac.uk



History

The patient's history should be documented in chronological order. Important general questions relate to the use of the animal (working/pet), diet, vaccinations, etc. The animal's level of exercise, episodes of previous illness, or previous musculoskeletal disease may be relevant to

the current situation.

There is increasing interest in the use of clinical metrology instruments (owner questionnaires) for musculoskeletal disease. Such instruments do serve to formalise collection of some basic data and also to "stage" the condition as seen by the owner. The scores generated by such instruments can be useful to track clinical progression and response to treatment. We have recently published an owner-administered clinical metrology instrument and this has been partially validated in canine elbow osteoarthritis (Hercock and others 2009). You are welcome to download the instrument and the accompanying user guide for use in individual patients in your clinic at:

LOAD: <http://www.liv.ac.uk/sath/services/LOAD.pdf>
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User guide: <http://www.liv.ac.uk/sath/services/NOTES.pdf>

Other clinical outcomes measures have also been partly validated (Brown and others 2008, Hielm-Bjorkman and others 2003). Criterion validity for LOAD (comparison to force platform) was recently demonstrated to be superior to these two other instruments (Walton and others 2011).

Examination of the patient

Examination of the patient with osteoarthritis should start with a general physical examination. Then one should pay particular attention to areas of inflamma-

tion, contusion, deformity, malfunction/disease, atrophy/hypertrophy, increased/decreased range of motion, disarticulation or fracture. There are definite sections to a logical lameness examination:

- Observation
- Palpation: muscle mass, pain, swelling, heat
- Manipulation: joints, muscles, tendons, spine
- Neurological function

Locomotion can be divided into phases. These are "swing" and "stance" and are detailed below: Observation with the dog at rest allows assessment of conformation, deformity, distribution of bodyweight - uneven distribution points to discomfort. Ask yourself the following questions:

- Is weight distributed forward?
- Is weight distributed backwards?
- Is weight distribution asymmetric?
- Is weight shifting?

Videos can be useful tools to assess lameness and function. Smart phones provide an opportunity for owners to readily capture their animals function in the home environment or field situation. High-speed videos can be useful in the clinic and are now very affordable. These allow for detailed analysis of function. Increasingly, specialist clinics are investing in objective measures of gait such as force platforms, pressure mats and motion capture systems.

References and further reading:

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- Hielm-Bjorkman, A. K., Kuusela, E., Liman, A., Markkola, A., Saarto, E., Huttunen, P., Leppaluoto, J., Tulamo, R. M. & Raekallio, M. (2003) Evaluation of methods for assessment of pain associated with chronic osteoarthritis in dogs. *Journal of the American Veterinary Medical Association* 222, 1552-1558
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