Methodology for Feline Hip Dysplasia evaluation in Maine Coon

Introduction

There are two existing international systems for the evaluation of HD in cats, already used by several MCO breeders in FIFe.

a) **OFA** has 3215 MCO evaluated in their registry since 1990 and evaluate approximately 90 HD cases for MCO every year. Evaluation is done by the orthopaedic specialist Dr. G. G. Keller for cats aged between 12-24 months. If the cat is over 24 months of age then a panel of three associated orthopaedists do the evaluation together.

b) **PawPeds** has over 4000 MCO evaluated in their health programme since its start in 2000, and usually evaluate ca 300 MCO hips every year. Evaluation is done by the orthopaedic specialist Dr. Per Eksell. Minimum age is 10 months.

Radiography, how to make the proper image

FIFe Members and their members should follow the guidelines given by the two current feline HD registries PawPeds and OFA, both very similar and describing how:

a) X-raying can be done by any veterinarian with the proper radiographic equipment

b) Hip x-rays can be done from the age of 10 months (PawPeds) or 1 year (OFA) and up to 2 years of age, always before the first time mating.

c) The veterinarian must follow the instructions how to verify the cat’s ID (microchip), how to position the cat correctly, how to fill in the form and how to submit the radiographs and form to the evaluation body

PawPeds – see Annex 2

OFA – see Annex 2

OFA – PayPal – see annex 3

d) If possible, the veterinarian should attend a course to ensure knowledge of radiographic routines for HD, many veterinarian associations offer this to their members

e) Procedure details:

the cat is not given a sedative (injection) since it may have minor effects on the outcome of the evaluation. However, if it is necessary then a mild sedative (injection) is recommended before the radiograph is done, to facilitate the positioning of the cat. The cat should however not be heavily sedated.

The same routines should be used as for radiographing dog's hips. The pelvis and the knee joints should be seen on the radiographs. The legs should lie parallel and the knee joint should lie in a straight line with the thighbone. The legs should not to be rotated inwards or outwards.

The HWC recommends to identify those veterinarians who are skilled in taking radiographs for evaluation of hip dysplasia in cats and dogs.

Evaluation

Feline Hip Dysplasia is an inherited trait involving multiple gene pairs. Two cats with no sign of HD together can produce offspring which develop HD. Two cats having HD can also produce kittens that do not develop HD. Therefore, each generation of breeding stock should be tested for HD in order to reduce the risk of developing HD.

The experience over many years of HD screening from OFA, PawPeds and also the FCI kennel clubs show that evaluation and scoring (grading) must be done by a specialist in orthopaedics. Research studies also emphasize that feline hip dysplasia (FHD) has different expressions than canine hip dysplasia (CHD), so the specialist needs to have knowledge of how HD is expressed in cats. Both systems, OFA and PawPeds, have different scales how to evaluate the results, HWC recommends to respect both.

Please, see the table below.
Breeding recommendations:

The HWC would like to point out that this was not part of the proposal. The following information is advice to breeders how to deal with the results of their cats and how to manage further breeding.

**According to OFA:**
- Cats with grade Excellent, Good or Fair/Normal can be used for breeding.
- Cats with borderline hip dysplasia or with mild/moderate/severe hip dysplasia before reaching 24 months of age are temporarily prohibited from breeding until retesting at the age of at least 24 months. If the HD grade at 24 months is at least fair (or better), cats can be used for breeding, others are prohibited from breeding indefinitely.

**According to PawPeds:**
It would not be wise to exclude cats with HD entirely from breeding. Therefore, we recommend today that cats with the test result “Grade 1” on the scale used in Sweden are not automatically excluded from breeding but should only be mated to cats with no sign of HD = “Normal”.

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