

Challenges of the older feline friend

Increasing veterinary healthcare and welfare standards mean that our pet cats are living longer, but an ageing population brings with it its own challenges. In this article, Sarah Collins DipAVN(Medical)RVN, VTS(ECC), Cert CFVHNut, ISFM programme manager, International Cat Care, looks at some of the common changes which can affect the older cat and how we can be better prepared

Ageing is a normal, if not somewhat complex, natural biological process, which leads to progressive reduction of the ability to maintain homeostasis due to internal physiologic and external environmental stressors.¹ Ageing is not a disease and cannot be prevented or reversed, although there are some conditions which are more likely to be associated with the ageing feline and for which we can implement preventive healthcare plans to help with early detection and treatment.

There are 7.5 million cats in the UK² and with huge advances in feline medicine, a fair proportion of these will fall into the life stage groups: mature (seven-10 years); senior (11-14 years); and super senior (15 years and more) as defined by International Cat Care (see Figure 1).³ As veterinary surgeons and nurses, it is, therefore, important that we not only understand the diagnosis and management of cats with age-related conditions, but that we are also able to identify this population in the first place.

CHALLENGES

When we think about 'old' cats, we think kidneys, and we are correct to, as 33% of cats over 12 years of age have some form of renal insufficiency and the propensity to develop the disease increases as the cat ages.⁴ Diseased kidneys have a mixture of functional and non-functioning nephrons, with renal function being influenced by the number of functional nephrons. Loss of functional nephrons leads to a decreased glomerular filtration rate, which in turn reduces the ability of the kidneys to filter and excrete waste products efficiently. Accumulation of nitrogenous waste products such as urea, creatinine and ammonia lead to azotaemia and uraemia, which can affect the gastrointestinal tract, cardiopulmonary, metabolic and endocrine systems as well as fluid, electrolyte and acid-base balance. Reduced renal function also effects the production of calcitriol and the kidneys' ability to degrade parathyroid hormone, and the resulting changes to calcium and phosphorus metabolism may lead to hyperphosphatemia, osteodystrophy and deposition of calcium in soft tissues.⁵ Early detection is key to managing chronic kidney disease (CKD), as it allows the provision of supportive measures sooner with dietary management in particular leading to increased survival times.⁶

Another common condition seen in the older cat is degenerate joint disease which has a prevalence of 90% in cats over 12 years of age.⁷ Osteoarthritis has been identified in 61% of cats aged 6-14 years and 82% of cats over 14 years of age.⁸ This may be due to the fact that ageing cartilage has limited ability to regenerate following activity or trauma.⁵ However, clinical signs are often not seen, or at least not obvious to the cat owner, and so this is often an incidental finding during radiography performed for other reasons. Sarcopenia may be more apparent and is common in the older cat with loss of muscle mass resulting in decreased muscle strength. Older cats are often less active and, as a result, a reduction in muscle tone may be seen which may further reduce their ability to run, jump and climb. This lack of movement can contribute to stiffening of the joints. Pain from osteoarthritis and/or weakness from sarcopenia can make it difficult for cats to jump up and down, so the only sign may be that the cat is no longer sitting in high up areas – something that cat owners may not notice or may consider to be 'normal' for an ageing cat.

Basal metabolic rates are reduced in older cats due to changes in body composition, in particular the loss of muscle mass⁹ leading to loss of weight and body condition.⁹ Behaviour changes are not uncommon in the ageing feline and owners may notice changes such as altered sleep/wake



Figure 1: How old is your cat? Photo: iCatCare.

cycles, vocalisation, changes in elimination habits as well as changes in interactions with people and other pets.⁹ A recent publication comparing information provided by owners of cats over 11 years of age from 1995 with that from 2010-2015 showed that the most important behavioural changes seen were: increased affection towards their owners (51.9% in 1995; 35.8% in 2010-2015); increased vocalisation (63.5%; 58.9%, respectively); particularly at night (32%; 43.6%); and house-soiling (29.3%; 55.8%).¹⁰

Other challenges of the older feline friend include possible declined responses to smell and taste, changes in skin and coat condition, cardiac conditions, hypertension, periodontal disease and digestive issues such as constipation and decreased digestion of fats and proteins.

PREVENTIVE HEALTHCARE PLANS

Early detection of changes in physical and mental health and wellbeing of the ageing cat are key to long-term management of age-related conditions, but detection can be an issue if cats are not presented to veterinary clinics for regular checks. As veterinary professionals, the first challenge is to get cat owners to recognise the benefits of such checks as 67% of vets feel that owners do not value an annual exam.¹¹ However, when cats are presented to the clinic for preventive healthcare checks, clients are two to three times more likely to take up preventive-care therapies such as flea and worm treatments, and 69% of cats have a health issue identified¹¹ so there is a huge opportunity for prevention and detection of disease as part of a preventive healthcare programme.

Healthy cats 11 years of age, or older, should be examined every six months and include comprehensive history taking alongside a full physical examination.¹² A minimum database of haematology and biochemistry (including T4) alongside urinalysis and blood pressure measurement is recommended at least annually from the age of seven to 10 years, with the frequency increasing as cats age.¹² International Cat Care's 'Cat Care for Life' scheme (www.catcare4life.org) is a free, useful resource for both veterinary professionals and cat owners, which provides recommendations and explanations on preventive healthcare, including educational and motivational materials to help address compliance issues.

ENVIRONMENTAL CHANGES

Treatment of disease(s) identified in older cats will depend on diagnosis, pre-existing and/or concurrent conditions and the individual cat and client's circumstances. However, there are many adaptations that can be made, in general, for older cats bearing in mind the conditions which are more likely to be seen.

All cats should be provided with sufficient resources within their environment (eg. food bowls, water bowls, toileting and scratching opportunities, resting places, etc.). Each resource should be in a separate location and cats should have a choice for each resource; for example, a minimum of two resting areas, two feeding areas and two toileting areas.¹³ In older cats, we need to consider access to these resources, especially if mobility is an issue. For example, owners should

consider the size and depth of litter trays to ensure the cat can enter them easily.¹⁴ A cat that finds it difficult to jump in and out of a high-sided litter tray may toilet outside the tray instead, and although other medical conditions such as feline idiopathic cystitis (FIC) will need to be investigated and excluded, changing to a shallower tray may be all that is required. Providing resting places in a variety of areas and at different heights also gives the cat choice, as well as creating 'steps' up to higher areas so that the cat can still access its favourite places (see Figure 2). Food and water bowls can also be raised slightly off the ground so that the cat does not need to bend down so far.



Figure 2: Provide steps up to higher areas. Photo: Sarah Collins.

WEIGHT AND DIETARY MANAGEMENT

Regular weighing and body condition scoring is important in adult cats due to the high prevalence of obesity, but it remains a vital measure in the older cat as, although they are less likely to be obese, we can see weight loss and low body scores due to underlying disease and/or digestive issues.¹² Cats diagnosed with a clinical condition that can be supported with nutritional manipulation should receive the appropriate clinical diet eg. renal diets or urinary diets. For the healthy older cat, we need to take into consideration both physical and physiological changes and adapt the diet accordingly. Older cats are less able to digest fat and protein with 33% of cats over 12 years of age having a decreased ability to digest fat, and 20% of cats over 14 years of age having a reduced ability to digest protein.¹⁵ A combination of sarcopenia and reduced protein digestibility means that it is important that high quality and easily digestible dietary proteins are provided in order to reduce muscle loss due to protein catabolism.

Renal diets should be considered for cats with International Renal Interest Society (IRIS) CKD stage 2 and are recommended for cats with IRIS CKD stages 3 and 4.¹⁶ However, for cats in IRIS stage 1, renal diets are too restricted

in phosphorous and so 'senior' diets are recommended, which usually have adapted phosphorous levels. Other nutrients which can be included in senior diets to support the ageing cat include antioxidants to help combat oxidative stress and support the immune system, omega 3 fatty acids – eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) – for joint health and L-tryptophan for cognitive health. Hydration is also important in older cats and, as well as ageing kidneys, they may have reduced colorectal motility which can lead to constipation. Water intake can be increased by offering wet foods and plenty of access to water in a variety of presentations (water bowls in different locations, water fountains, dripping taps, etc. Figure 3).



Figure 3: Provide water in various locations and heights.
Photo: Sarah Collins.

QUALITY OF LIFE

Finally, quality of life is an important issue to consider and discuss with the owners of elderly cats. Many changes are often put down to the cat 'just getting old' by the owner, and they may not mention them to their vet or even seek advice regarding such changes in the first place. However, it is vital that they understand the significance of these subtle changes as identification of these signs allows timely intervention that can improve quality of life.⁹ Due to a cat's ability to hide illness, giving the owner an assessment to complete should help raise their awareness of the cat's changes in behaviour. Questionnaires and quality of life scales such as the CHEW questionnaire¹⁷ can be used to identify areas of concerns.

CONCLUSION

Although ageing can bring with it many issues, it is a completely normal process that we cannot stop. Being prepared as both veterinary professionals and cat owners we can support our older feline friends during this process by making adaptations in the environment as well as regular checks as part of a preventive healthcare plan. Many older cats live happy lives with the support of their owners and the veterinary clinic and are a joy to own and care for.

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