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Free Download guides to urine collection, blood pressure measurement, ocular examination and manifestations of systemic hypertension can be found on the author's website:

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Maintaining health in the older cat

Older cats comprise an increasing proportion of our caseload. Although there are many common conditions affecting older cats, recent advances in diagnosis and treatment mean that treatment outcomes can often be excellent. Subclinical illness is common in cats, therefore diagnosis often needs to be proactive, requiring attention to preventive medicine such as routine urinalysis and blood pressure screening. In general, earlier diagnosis leads to a better treatment outcome so should be promoted whenever possible.

Keywords: Cat, feline, senior, geriatric, preventive medicine

Introduction

Thanks to better diets and care in general, more and more of our cats are living to an advanced age. Seeing and examining apparently healthy mature cats is important since it can help to identify clinical problems before they reach a crisis point.



Whilst a number of conditions are common in elderly cats (Table 1), it can be very challenging to diagnose these for a number of reasons. Many of the illnesses commonly seen in elderly cats start insidiously in middle age and often are only diagnosed once relatively advanced. For example, cats in the early stages of kidney disease will typically show no outward signs of illness, although many of them will have detectable abnormalities when laboratory testing is performed. Subtle clinical signs such as weight loss and small changes in thirst may pass unnoticed or their significance be overlooked. It is common for elderly cats to suffer from more than one condition simultaneously and this can confuse diagnosis. Other challenges include owner perceptions of what should be considered 'normal' for their cat. Many owners feel that it is acceptable for their elderly cat to be thin, walk stiffly and have an increased thirst! The veterinary profession faces many challenges in educating owners to the benefits of making an early diagnosis such that appropriate treatment interventions can be introduced.

For these reasons, routine health screening tests, such as the WellCat tests described below, are strongly recommended in older cats. The aim of these tests is to identify abnormalities at an early stage such that prompt treatment can be instituted.

Table 1: Common health problems in older cats:

- **Cognitive dysfunction:** Estimated to affect more than 50% of cats over the age of 15. This age-related deterioration in brain function results in behavioural changes such as vocalising at night, signs of confusion, forgetfulness and altered sleep patterns
- **Constipation**
- **Deafness**
- **Dental disease**
- **Diabetes mellitus:** estimated to affect up to 1% of cats.
- **Hyperthyroidism:** estimated to affect about 10% of cats over the age of 9.
- **Kidney disease:** estimated to affect about 30% of cats over the age of 15.
- **Neoplasia**
- **Osteoarthritis:** estimated to affect more than 90% of cats over the age of 12. (Hardie, Roes, Martin, 2002). Clinical signs are less obvious than in dogs. Affected cats typically show behavioural changes such as using stairs and cat flaps less often, becoming more withdrawn or grumpy with people and other animals, showing stiffness and difficulty jumping. (Clarke, Mellor, Clements et al 2005; Godfrey, 2005).
- **Overgrown claws:** older cats are vulnerable to developing thickened overgrown claws which may grow into their foot pad.
- **Systemic hypertension:** estimated to affect more than 20% of cats with chronic kidney disease and 10-15% of cats with hyperthyroidism. Can also occur as a condition on its own.
- **Urinary tract infections:** recognised to be common in association with certain conditions such as CKD, hyperthyroidism and diabetes mellitus. Many affected cats show no lower urinary tract signs (i.e. the infection may be clinically 'silent').

What preventive healthcare is appropriate as cats age?

The author recommends that clinicians follow the iCat Care (formerly Feline Advisory Bureau) WellCat guidelines for assessment of older cats in order to diagnose illness promptly. The WellCat guidelines advocate that:

Cats of all ages should be assessed at a veterinary practice at least once a year and their weight and body condition score recorded in addition to a general physical examination and discussion of appropriate preventative health care.

In addition to this:

"Mature" cats: those aged 7–10 years old, should have their blood pressure (BP) checked once a year and a urinalysis (urine specific gravity and dipstick) performed.



"Senior" cats: those aged 11–14 years, should have blood tests done (haematology, serum biochemistry, total T4) once a year. Consideration should be given to increasing the frequency of BP and urinalysis check-ups to every 6 months in these cats.

"Geriatric" cats: those aged 15 years or older, should be assessed at a veterinary practice every 6 months at which time a clinical examination, weight check, body condition score, BP and urinalysis should be performed. Blood tests should continue to be done annually unless there is any clinical indication to increase the frequency of these.

The author prefers to see 'Senior' patients every 6 months and 'Geriatric' patients every 3 months.

History and examination tips for older cats

Collecting a detailed clinical history allows documentation and analysis of clinical and behavioural changes which could indicate presence of illness. Particular attention should be paid to looking for the common problems already mentioned; therefore, relevant areas to focus on include:

- Thirst – any increase? Polydipsia may be seen with conditions including chronic kidney disease, hyperthyroidism and diabetes mellitus.

- Appetite – any increase or decrease?
- Eating? For example, dropping food when eating or only chewing on one side of the mouth can be seen in cats with dental disease.
- Breath? Halitosis is often seen in cats with dental problems; other causes of bad breath include kidney disease and diabetes mellitus (ketosis may leave breath smelling of pear drops).
- Weight? Any change in bodyweight (increase or decrease) is likely to be significant and should not be ignored
- Behaviour? Even small changes in behaviour can be significant – for example, 'grumpiness' with other housemates can be a sign of chronic pain, due to osteoarthritis. Also is there any evidence of cognitive dysfunction or hyperactivity (hyperthyroidism)?
- Mobility or agility? Any stiffness or difficulty in performing normal activities such as jumping, going up and down stairs, using a catflap and grooming?
- Energy levels? Either increased or decreased energy levels can be a sign of ill health. For example cats with hyperthyroidism may be reported to be hyperactive and restless whereas a cat with significant heart disease may spend all day resting in one place.
- Urination and defecation? This includes changes in the volume, frequency, appearance, location and ability to comfortably pass urine or faeces. Changes to any of these are likely to be significant.
- Gastrointestinal signs? Vomiting and diarrhoea can be seen with a number of common illnesses including hyperthyroidism, inflammatory bowel disease and bowel neoplasia.
- Grooming? Reduced grooming can be seen with many illnesses including osteoarthritis. Over-grooming is also a sign of illness and can be seen with skin and other conditions.
- Breathing? Breathing more quickly (tachypnoea) and/or with more effort (dyspnoea) can indicate illness such as heart disease.
- Eyes, ears and nose? Discharges or changes in the appearance of these organs can be significant. For example visual deficits can be seen in cats with systemic hypertension.

A physical examination will also help to identify changes which may have resulted from illness. One of the most effective indicators of ill health is weight loss although

this is a non-specific abnormality. Often, marked weight loss occurs without a carer noticing since the weight loss typically takes place over several months.



It is essential to weigh the cat on every visit to the practice so that any weight loss can be identified and treated promptly.

Case Example:

Harry is a 17 year old male neutered DSH. One year ago, he weighed 4.7 kg. Today he weighs 4.1 kg. His owners have not noticed any weight change in him at home although they reported an increased thirst and some stiffness.

Calculation of percentage weight loss:

Step 1: Calculate the amount of weight lost by subtracting today's weight from the previous weight: $4.7 - 4.1 = 0.6$ kg

Step 2: Divide the number obtained in Step 1 by the original weight. $0.6 \div 4.7 = 0.128$

Step 3: Multiply the number obtained in Step 2 by 100%: $0.128 \times 100 = 12.8\%$

Assessment: Harry has lost 12.8% bodyweight over the past year.

Interpretation of percentage weight loss figures – author's recommendations:

> 10% weight loss: severe weight loss, immediate action justified

5 – 10% weight loss: significant weight loss, further investigations justified

< 5% weight loss: may or may not be significant, further monitoring justified

Outcome: Further investigations revealed IRIS Stage 2 chronic kidney disease and osteoarthritis. Harry made excellent progress on treatment for both of these conditions.

Body condition score (BCS) assessment is also valuable. The BCS system provides a way of measuring a cat's body condition that is independent of weight on the scales, as this can be misleading. For example, a domestic short hair cat weighing 4 kg might be considered to have a healthy weight whereas a Maine Coon weighing the same would usually be considered to be underweight. Using a scale from underweight to overweight (usually from 1 to 9), a cat is allocated a number according to how much fat they are carrying on their body.

Physical examination may also find other indicators of illness such as: dental disease, an enlarged thyroid gland, joint problems, heart problems including tachycardia, heart murmurs and a gallop rhythm.