The geriatric factor!

Dogs, cats (and people) are living longer! Owners are often willing to do what’s best for their elderly companion. In the current economical situation, this is a market that the profession cannot afford to neglect.

Finding a balance between a full battery of expensive, invasive tests (not always necessary), the financial constraints for the owner and the therapeutic options currently available, is not always a straightforward and easy exercise. Recently, some human clinics have started to offer full screening (including MRI and CT scans) to their patients. This is of course costly and can lead to dilemmas and anxiety. The following is rather common: we noticed a small “something” in your abdomen but we are not quite sure of what this is…

If the patient is otherwise apparently healthy and asymptomatic, what is the next step? Surgery? Benign neglect? Re-examining in 1 month? There are several options available but one certainty: a great deal of worry. As always, communication is key. Before embarking on a full scale programme in your practice, prepare the battlefield. Evaluate the demographics of your practice: what is the proportion of senior patients? How far do you want to go? Do you have the staff, the time, the equipment and the money to start running special senior clinics? If the answers are positive, design a tailored health screen for your clientele and making sure that your feet are well rooted on the ground, embrace the challenge of the geriatric factor.

Better nutrition and medical care, neutering, unprecedented progress in the diagnosis and management of diseases, combined with the “family member” status of pets, are the main reasons for this undeniable phenomenon. Just like in people, vets are often consulted to evaluate and treat the ageing process, and it is now part of the routine work in most clinics. The senses can implement special senior consultations and specific screenings that can lead to the early diagnosis and optimal treatment of various age-related conditions. If the technical side of gerontology is rather straightforward for most veterinary surgeons, they sometimes are ill-prepared for the communication with owners. It is important to understand the implications of ageing and ultimately the loss of a pet. Dogs and cats age faster than people, and many owners will experience the death of the animal that they saw being born and raised with great care. This can be very traumatic and is sometimes the first time that someone is confronted with the thought of their own death. This is especially true for children.

What is ageing?

There are numerous definitions, but ageing can be described as an accumulation of different events that increase your chances of dying! In other words, whatever you do, your patient will ultimately die. “Wear and tear” can be broadly divided into two groups of events: the senescence coming from the genes, and the interactions with the environment and the damage caused by free radicals to the DNA.

It is common knowledge (even if very few studies are actually available as far as small animals are concerned) that lifestyle plays a key role in the process of ageing. Obesity (Kealy, 2002), poor nutrition, trauma, intensive stress (multiple pregnancy, overpopulation and extreme climate) or extreme work are factors that tend to reduce longevity. In human medicine, numerous long-term studies have investigated the influence of various environmental parameters, but there are few in dogs and cats.

The lifespan of dogs and cats has been constantly increasing over the last 30 years. Nowadays, it’s not rare to see cats and even dogs living longer than 20 years.

Evaluate the demographics of your practice, prepare the battlefield. Find a balance between a full scale programme in your practice, prepare the battlefield. Evaluate the demographics of your practice, what is the proportion of senior patients? How far do you want to go? Do you have the staff, the equipment and the time to start running special senior clinics? If the answers are positive, design a tailored health screen for your clientele and making sure that your feet are well rooted on the ground, embrace the challenge of the geriatric factor.

Old… happy and healthy!

What is ageing?

There are numerous definitions, but ageing can be described as an accumulation of different events that increase your chances of dying! In other words, whatever you do, your patient will ultimately die. “Wear and tear” can be broadly divided into two groups of events: the senescence coming from the genes, and the interactions with the environment and the damage caused by free radicals to the DNA.

It is common knowledge (even if very few studies are actually available as far as small animals are concerned) that lifestyle plays a key role in the process of ageing. Obesity (Kealy, 2002), poor nutrition, trauma, intensive stress (multiple pregnancy, overpopulation and extreme climate) or extreme work are factors that tend to reduce longevity. In human medicine, numerous long-term studies have investigated the influence of various environmental parameters, but there are few in dogs and cats.

The unique Royal Canin nutritional answers designed to promote ageing dogs’ vitality and health. The exclusive range you advise during the senior consultation.

Your nutritional advice helps keep mature dogs healthy!
Ageing = Lower immune system and other problems...

Numerous studies have highlighted the age-related changes in the activity of the immune system (Borgarelli & Haggstrom, 2010). The defence reactions tend to be less active, efficient and controlled. This is called immunosenescence. The changes noticed in elderly dogs and cats are very similar to what happens in geriatric humans. Broadly, there are a reduced number of lymphocytes (B and T). The innate immune function appears to be relatively age-resistant (neutrophil phagocytosis and NK cell activity seems to be maintained in old dogs) and there is no noticeable impairment in the serological responsiveness to vaccination or exposure to a novel antigen (Day, 2008). Subsequently, even if the various mechanisms are not fully understood, infectious and neoplastic diseases are more common in elderly animals. We also know that they heal less rapidly, whatever the lesion (from pruritus to surgical suture). The endocrine system can become erratic with age (without mentioning the frequent iatrogenic hyperadrenocorticism). Dogs will become ‘hypo’ and cats ‘hyper’ if we consider the thyroid. Diabetes is often the consequence of years of nutritional indulgence. With age, the efficacy of the kidney function tends to decrease, leading ultimately to end stage kidney failure (IRIS). Free radicals have been clearly identified in the genesis of numerous conditions such as diabetes, osteoarthritis, cancer, heart failure and central nervous system degenerative diseases.

Cognitive dysfunction

Decreased cognitive function is one of the consequences of ageing in both dogs and cats (Landsberg, 2010). There is a reduction in brain mass, an increase in the ventricular size, meningeal calcification, demyelination, increasing quantities of lipofuscin and apoptotic bodies, neuroaxonal degeneration and reduction of neurons. Apoptoid plaques and perivascular infiltrates are also described in ageing dogs and cats (like in humans) (Landsberg, 2009). It is often very upsetting for the owner with a “sensible” pet and this might ultimately induce a request for euthanasia. The clinical expression of the condition varies and in order to monitor the efficacy of a therapy or the speed of the evolution, evaluation scores have been developed. They are also a good communication tool and should be used during consultations for senior pets (AAFP Senior Care Guidelines). The earlier the signs are identified, the earlier a treatment can be implemented and the more likely it is to be successful.

Influence of nutrition

Nutrient digestibility and absorption decreases with age in mammals (Harper, 1998). This happens even in healthy individuals and may not be noticed, especially if there is no obvious other clinical condition. This decline is thought to be due to changes in the composition of the bile, decreased secretion and activity of digestive enzymes, atrophy of the intestinal epithelia, altered gastric emptying and digestive transit rate. Changing to a more efficient diet should be implemented early, because with time the ability to smell and taste will diminish and appetite will decrease. It is recommended that the new diet is introduced gradually, and of course you should select a very palatable whilst nutritionally balanced food. Elderly animals don’t seem to feel thirst as much as younger ones and they are often chronically borderline dehydrated. This means that any situation interfering with the water/ electrolytes balance (for example the administration of a diuretic to treat a heart condition) can lead to clinical dehydration with dramatic consequences. In most elderly dogs and cats, the cardio-renal system is often stretched and has reduced adaptation capacity. Fluid administration is a very important measure in all sick aged dogs and cats.

Because older patients are more prone to obesity, degenerative joint disease, renal disease, dental disease and metabolic and endocrine dysfunction, their food should be adapted to minimise the risks of developing a fatal organ failure. The level of fat, phosphorus, fibres and also the quality and digestibility of the proteins (remember that proteins are indispensable nutrients, even for the elderly!) must be tuned to the needs of senior pets. In addition, the benefits of specific nutrients such as antioxidants and essential fatty acids to manage some age related conditions is well proven (Lascelles, 2011; Freeman, 2010). The texture should also be taken into account as well as the number of meals provided per day. This must be discussed with the owner.

In practice

Vets should be proactive in the care of senior dogs and cats. There are now numerous screening programmes available and it is important to find the right one for the practice. Each practitioner must find a balance between the different tests available and the expectations of each of their clients. For some, a full screening leading to the discovery of biochemistry abnormalities or the detection of a lump or heart murmur can be extremely traumatic and may generate unnecessary anxiety. For others, it will be necessary to get the full health picture of their favourite companion. The professional must also always bear in mind the therapeutic options if something abnormal is found. What is it? Is it causing a problem? Is there a treatment? Can I expect a full cure or remission? What would be the consequence of ‘benign neglect’? Do I need to tell this to the owner and possibly generate unwanted anxiety? Keeping our patients healthy and happy is our duty. Let’s not forget it, whatever their age.
Bear Ball Fel Ursi, or the bile of the bear, is considered to be one of the most precious traditional Chinese medicines. Many Asian farmers build bear farms in order to produce bile. Bears are imprisoned in small cages and their abdomens are intubated. Farm bears are treated badly, live in misery and die early mostly due to infections or liver cancer. The Animals Asia Foundation and Sichuan Forestry built the “Longqiao Bears Rescue Centre” in 2002. All of the rescued farm bears living at the Rescue Centre have appropriate living conditions and medical treatment. So far, there are over 200 bears living at the Longqiao Bears Rescue Centre.

Royal Canin have worked with the rescue centre since it was founded. Every year we sponsor their activities and donate food. In addition, the Rescue Centre purchases veterinary diets from Royal Canin. Dr. Heather explained that sometimes bears will have unidentified skin disease symptoms such as itching and hair loss. In order to diagnose a food allergy, the bear will be fed the Hypoallergenic veterinary diet exclusively for more than one month. Although this kind of problem is not very common, it is a necessary step for obtaining an accurate diagnosis.

Bear farming is still legal in China; however it is now illegal to set up new farms. In 2000, Animals Asia signed an agreement with the CWCA and Sichuan Forestry to rescue 500 bears from the worst farms and to work towards ending this industry. If you would like to join or donate, please contact Animals Asia Foundation: http://www.animalsasia.org/

Melody Wu

A rescued Moon Bear.

Royal Canin Veterinary Diets for the Moon Bear

INTERNSATIONAL PRESS REVIEW

Bartonellosis... Don’t always blame the cat!

Bartonella henselae (as well as Ehrlichia, Anaplasma and Rickettsia) are Gram – bacillae, which are known to cause tick born diseases. They are the infectious agents involved in cat scratch disease, where it is thought that the infection occurs via cat saliva.

Infection can also occur when flea faeces are mechanically introduced under the skin through a scratch or bite wound. A recent study showed that people who have never had contact with pets were seropositive to B. henselae. The latest hypothesis for transmission of the disease focuses on ticks, but so far no tick borne bartonellosis has been proven.

The authors recommend putting this condition on the differential list in the case of lethargy, fever and general malaise in a patient with a history of possible arthropod bites. This is even in the absence of contact with a cat, so worth remembering when the human doctors blame the pet.


Chronic renal disease: what every pet owner should know.

Both elderly dogs and cats suffer from chronic renal insufficiency. The overall prevalence is estimated to be 5.9% in the pet population, mainly affecting geriatric patients. Sadly, often when the practitioner establishes the diagnosis, the prognosis is already guarded.

A recent study highlighted the fact that in most cases, animals exhibiting clinical signs were often overlooked or neglected by the owner. If the disease is spotted early, dietary measures can be implemented straight away. Indeed, this is currently the best therapeutic approach.

The conclusion of this survey highlights the importance of noticing polyuria-polydipsia (the only statistically significant symptom) as early as possible. Most cat owners tend to overlook the fact that they need to refill the water bowl more frequently or that the litter tray is wetter than before. Hyperthyroidism is also associated with a higher risk of developing a kidney insufficiency. In dogs, in addition to the PUPD, owners should be attentive to a possible halitosis, weight loss or decreased appetite.

The take home message is to talk to owners of elderly pets so that they can spot the early signs of this killer condition.

Bartlett PC – Case-control study of risk factors associated with feline and canine chronic renal disease. Veterinary Medicine International 2010 - Article ID 957750 (on line)

Bear farming is still legal in China; however it is now illegal to set up new farms. In 2000, Animals Asia signed an agreement with the CWCA and Sichuan Forestry to rescue 500 bears from the worst farms and to work towards ending this industry. If you would like to join or donate, please contact Animals Asia Foundation: http://www.animalsasia.org/
Small Animal Neurology
Fitzmaurice SN (ed) - Saunders Solutions in Veterinary Practice. Elsevier 2010

Dealing with a neurological case is always a challenge. Where should you start? How do you differentiate between the symptoms? This practical book can help the busy practitioner: because steroids do not cure everything! As always, history taking and a thorough clinical examination are paramount to achieving a diagnosis.

Of course this will also help you to decide on the best treatment. Numerous practical tips will help the reader to avoid the common pitfalls in interpretation of the tests. A mnemonics text is also supplied for remembering the dreaded 12 cranial nerves! Several tables and clear anatomical drawings allow good localisation of the lesions according to the symptoms observed. After this necessary anatomo-physiology reminder, the bulk of the book consists of a clear description of common neurological symptoms and their possible aetiology. Behavioural changes, seizures, blindness and urinary incontinence are common presentations of neurological disorders. Once you reach the final pages of the book, test your neurological knowledge and try answering the 42 questions. If your treatment has dramatically failed, you can also find out how to remove the brain in order to learn from your mistakes.

www.elsevier.com

Sleisenger and Fordtran’s Ninth Edition
Gastrointestinal and Liver Disease
Feldman M, Friedman MD, Brandt LJ Eds - Saunders Elsevier 2010

This journal is for veterinary surgeons but it was difficult to resist diving into the human gastroenterology bible. These books (there are two volumes and a separate review and advanced section) provide you with all you would want to know about the digestive tract and its main functions. A large section focuses on nutrition, with obesity being the main condition covered.

It is divided into four sections: general considerations, infectious diseases, diagnostic and therapeutic approaches, and a systematic clinical approach (by system). The specificities of the paediatric patient have not only been carefully explained, but a list of references will allow the reader to find out more if they wish. I found numerous interesting topics and tips whilst browsing through the 528 illustrated pages. If you are a parent, you will know about the Apgar scoring, but did you know that there is an equivalent for puppies and kittens? How about the safety and dosage of the drugs in neonates?

An interesting chapter deals with pain management. Sadly pain in neonate and juvenile patients is often overlooked and not treated. If the numbers stated in the first chapter of this book are correct: neonatal losses approaching 30% for most purebred breeds, then this book is definitely the first step towards a better outcome for many puppies and kittens.

www.elsevier.com

Another myth bites the dust
How many times have we heard that early neutering promotes urinary incontinence in bitches? A recent study examining the risk factors of the condition found no association between early spaying and incontinence (in fact it’s quite the opposite). Tail docking, a body weight of over 10 kg and age were actually promoting factors.


Don’t trust what it says on the pack!
In a recent communication, the allergenicity of pet shop or supermarket “limited ingredient” diets were evaluated. Some owners are tempted to buy a cheaper food for their allergic pet. Veterinary diets for managing adverse reactions to food are effectively free from foreign proteins; however, it is not the case for those purchased in general distribution. An ELISA test demonstrated that three out of 4 diets contained chicken, soy or beef proteins.

The consumption of such falsely labelled “limited ingredient” foods can trigger a relapse of allergic signs.

The take home message is simple: don’t trust what it says on the pack (but you can trust you vet)!


Pathogenesis
The pathogenesis of canine idiopathic sebaceous adenitis (inflammatory reaction leading to the loss of sebaceous glands) remains unknown. Several therapeutic options have been considered. This disease does not respond to corticosteroids and the results seen using synthetic retinoids are variable. Regional topical treatments with emollients and shampoos are regarded as a good therapeutic option, but they can be limited by the owner’s compliance and the patient’s cooperation. Cyclosporin A has shown promising results but the cost remains a limiting factor. A synergistic effect of topical treatment and CsA has been demonstrated in a recent study and is regarded as a valuable option.