Proceedings of the 34th World Small Animal Veterinary Congress
WSAVA 2009

São Paulo, Brazil - 2009

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FELINE SENIOR HEALTH CARE PROGRAM
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INTRODUCTION
Aging is defined as "a complex biologic process resulting in the progressive reduction of an individual's ability to maintain homeostasis under internal physiologic and external environmental stresses, thereby decreasing the individual's viability and increasing its vulnerability to disease and eventually leading to death." Age is not a disease, rather, it is a manifestation of the body's diminished repair response. As an animal ages, progressive changes occur, including an altered immune response, decreased respiratory capacity and metabolic rate, increased tissue fragility, loss of muscle and nerve cells, thickening of the lens, loss of flexibility, wrinkling of the skin, and sluggish or poorly controlled elimination of stool and urine.

Owners often ask us to compare "cat years" to human years. A figure that is commonly used is 7 cat years for each calendar year. However, this rule of thumb is not completely accurate. Feline development through puberty to young adulthood is accomplished over a period of about 18 to 24 months rather than 21 years as in humans. Thus, the cat's first calendar year is more like 16 human years and the cat's second calendar year is more like 5-7 human years (up to an equivalent age of 21 to 23 years in humans). After that, add about 4 years for each calendar year of cat life. Thus, an 8-year-old cat is like a 46 year old person. A ten-year-old cat would be 54, a 15-year-old cat 74, and a 20-year-old cat, 94 cat years of age. Experts differ as to when one would consider an aging cat to be "geriatric", but you can select your own cut-off based on this comparison to the equivalent age in humans. The feline patient population is getting older as advances in animal health care and nutrition as well as lifestyle changes (more indoor only cats) have enhanced longevity. Therapeutic decisions in older cats should not be made on the basis of age alone, but rather on the basis of the cat's general state of health, expected length of life, and anticipated quality of life with therapy. Changes in senior cats occur across a fairly wide age range. While many cats begin to show clinically significant changes between 7 and 10 years of age, most do so by 12 years of age. Because geriatric disorders tend to be chronic and progressive, veterinarians treating aged cats must be adept at managing and monitoring chronic disease, and if possible, preventing disease progression. Common chronic diseases of aged cats include hyperthyroidism, inflammatory bowel disease, renal insufficiency, diabetes mellitus, degenerative joint disease, periodontal/dental disease, and feline immunodeficiency virus (FIV) infection. All of these recognized disease conditions provide opportunities for veterinary management that will improve the health of affected patients and improve the quality of life as well as quantity of life.

Cats today have an increased life expectancy primarily due to advances in veterinary medical care and nutrition, vaccination and a lower incidence of traumatic injuries, and better care provided by more informed cat owners. Today's cat owners want more thorough and better veterinary care for their pets and it is our responsibility to provide it for them. However, many cat owners don't understand when their animals become senior or geriatric.

The American Association of Feline Practitioners (AAFP) has recently completed a major panel review documenting recommendations and suggestions for practitioners interested in improving the health maintenance and management of older feline patients. The objectives of this senior health care program are to promote the longevity and improve the quality of life of senior feline patients by: recognizing and controlling health risk factors; detecting disease during the
preclinical phase; correcting or delaying the progression of existing disorders; and improving or maintaining residual function. It is important that the program be individualized specifically for the needs of each patient; in some situations, the components may be more complex than those detailed here. From the cat owners' perspective; the program must be affordable, manageable, and consistent with their philosophy. Initiation of a senior health care program is recommended for cats starting between 7 and 11 years of age, and should continue throughout life. Components of a feline senior health care program include: regularly scheduled office visits during which a complete medical and behavioral history is gathered, a systematic physical examination is performed, and appropriate diagnostic tests are evaluated; vaccination and parasite control; and client education.

**Diagnostic Testing for Senior Cats With No Clinical Signs of Disease**

Based on the frequency of certain diseases in the older cat population and the goal of early intervention, selected diagnostic tests should be performed annually (most conveniently at every other office visit). Diagnostic tests should consist of a minimum of the following: a complete blood cell count (including hematocrit; red blood cell count, indices and morphology; white blood cell count; differential white cell count evaluated by cytology; total protein; and platelet count); creatinine (preferred over blood urea nitrogen as a screening test because it is less influenced by non-renal factors). Thin older cats often have false decreases in serum creatinine due to decreased muscle mass; serum potassium; serum glucose; total T4 (determined by radioimmunoassay); alanine aminotransferase; and alkaline phosphatase. Feline leukemia virus antigen and feline immunodeficiency virus antibody testing should be included for those cats whose infection status is not known or for cats at risk of exposure. A complete urine analysis should include physical evaluation (color, turbidity and specific gravity), chemical evaluation (protein, glucose, bilirubin, occult blood, and pH), and microscopic examination of the urine sediment. The sample should be collected by cystocentesis.

**Diagnostic Testing for Senior Cats With Clinical Signs of Disease**

Selected diagnostic tests should be performed at each semiannual visit, however, the frequency of testing and the choice of tests may vary depending upon the individual needs of the patient. At a minimum, the semiannual tests should include the following: a complete blood cell count (including hematocrit; red blood cell count, indices, and morphology; white blood cell count; differential white cell count evaluated by cytology; total protein; and platelet count); a complete biochemical profile (including albumin; blood urea nitrogen, creatinine, serum glucose, alanine aminotransferase, alkaline phosphatase, gamma glutamyl transpeptidase, total bilirubin, sodium, potassium, chloride, calcium, phosphorus, total CO₂, and anion gap); and total T4 (determined by radioimmunoassay). It is important to fill tubes completely in order to accurately assess total CO₂ status; otherwise pseudo-metabolic acidosis will be diagnosed. It is also important to centrifuge and separate the serum promptly. Feline leukemia virus antigen and feline immunodeficiency virus antibody testing should be included for those cats whose infection status is not known or for those at risk of exposure. A complete urine analysis should include physical evaluation (color, turbidity, and specific gravity), chemical evaluation (protein, glucose, bilirubin, occult blood, and pH), and microscopic examination of the urine. The sample should be collected by cystocentesis. Blood pressure measurements should also be obtained at least semiannually in senior cats with clinical signs of disease. A complete medical and behavioral history at every patient evaluation

**Vaccination and Parasite Control**
Vaccinations should be administered based on individual risk assessment and in compliance with local laws. Fecal analysis and parasite control should be undertaken for individuals at risk of exposure to internal and external parasites.

Most of this information is contained in the senior health care program is expanded in the AAFP document. Copies of this document have been published and are available from the AAFP/Academy of Feline Medicine.

Reference
Stubbs, C J. Providing the Best Care for Senior Cats Vet Med. February 2006;101(2):110-120.