

CANINE AND FELINE GERIATRICS

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Geriatrics as a life stage

Progressive and often irreversible change

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Geriatric Changes of Body and Skin/Adnexa

- ◆ Reduced caloric needs
 - ◆ Less activity
 - ◆ Decreased metabolic rate
- ◆ Increased percentage of BW is fat
- ◆ Haircoat dull and lusterless
- ◆ Hyperkeratinized footpads
- ◆ Brittle and malformed nails
- ◆ Areas of alopecia and callus

Geriatric Bone and Muscle Changes

- ◆ Muscle, bone, cartilage mass decrease
- ◆ Development of degenerative vertebral column and joint disease
- ◆ Bone marrow fatty and hypoplastic
- ◆ Nonregenerative anemia

Geriatric Oral and Gastric Changes

- ◆ Periodontal disease
 - ◆ Bad breath
 - ◆ Tooth loss
 - ◆ Gingival hyperplasia or retraction
- ◆ Saliva production decreases
- ◆ Gastric mucosa becomes atrophic and fibrotic

Geriatric GI Changes

- ◆ Gastrointestinal motility decreases
- ◆ Hepatocyte numbers decrease
- ◆ Hepatic fibrosis
- ◆ Pancreatic enzyme secretion diminishes

Geriatric Cardiac Changes

- ◆ Cardiac output decreases
- ◆ Chronic valvular disease develops
- ◆ Atherosclerosis of intramural cardiac arteries develop

Geriatric Pulmonary Changes

- ◆ Lungs lose elasticity
- ◆ Fibrosis occurs
- ◆ Pulmonary Secretions more viscous
- ◆ Vital capacity decreases
- ◆ Cough reflex and expiratory reflex decrease

Geriatric Urinary System Changes

- ◆ Kidney weight decreases
- ◆ Glomerular filtration rate decreases
- ◆ Tubules atrophy
- ◆ Urinary incontinence

Geriatric Genital System Changes

- ◆ Prostate gland enlarges
- ◆ Testes atrophy
- ◆ Prepuce becomes pendulous
- ◆ Ovaries enlarge
- ◆ Mammae become fibrocystic or neoplastic

Geriatric CNS/Special Senses Changes

- ◆ The number of cells in the nervous system decreases
- ◆ Cognitive disorder may cause a loss of house training
- ◆ Vision/hearing diminish

Geriatric Definition

- ◆ Dogs are “seniors” from 6-13 years depending on size
- ◆ Dogs are “geriatric” after 9-13 years
- ◆ Cats are “seniors” from 8-10 years
- ◆ Cats are “geriatric” after 10 years

Physical Overview

- ◆ Attitude
 - ◆ Alert, quiet, lethargic, depressed
- ◆ Condition
 - ◆ Ideal wt, obese, thin, cachexic
- ◆ Musclature
 - ◆ Normal, diminished, assymetrical
- ◆ Hair/Skin
 - ◆ Shiny, dry. Oily, alopecia, scale, unkempt
- ◆ Movement
 - ◆ Normal, short, lame, stiff, CP deficits

Recent History

- ◆ Review all systems, lifestyle, preventative schedule, and behavior
 - ◆ Skin/hair
 - ◆ Activity
 - ◆ Respiratory system
 - ◆ Gastrointestinal system

System Review

- ◆ Water consumption
- ◆ Urination
 - ◆ “accidents?”
- ◆ Genital
- ◆ CNS
- ◆ Weight changes?

Behavior History

- ◆ Change in sleep/wake cycle?
- ◆ Vocalization?
- ◆ Disorientation?
- ◆ Pacing? Repetitive behaviors?
- ◆ Decreased recognition/responsiveness?
- ◆ Anxiety?
- ◆ Decreased tolerance for being alone?
- ◆ Irritation/Aggression?

Physical Examination

- ◆ Highlight areas of increased risk
 - ◆ Tumors more common in geriatrics
 - ◆ Pain may not be evident to owners
 - ◆ Thoroughness essential

Physical Examination

- ◆ Nose
 - ◆ Airflow, symmetry, discharge, moisture, percussion
- ◆ Eyes
 - ◆ Discharge, sclera, iris atrophy and pigment, retinal degeneration or vascular changes, corneal dystrophy or cataract, tears, pressure

Physical Examination

- ◆ Lymph nodes
 - ◆ Size, texture, symmetry, aspirate
- ◆ Mouth
 - ◆ Teeth, gums, lips, tongue, mandible, palate, pharynx, salivary glands

Physical Examination

- ◆ Neck
 - ◆ Tracheal abnormalities
 - ◆ Thyroid
 - ◆ Jugular pulse
 - ◆ Freedom of movement

Physical Examination

- ◆ Ears
 - ◆ Hearing, discharge, tympanum, canal, pinnae
- ◆ Integument
 - ◆ Oily, dry, ectoparasite check, hyperkeratosis, hyperpigmentation, mammary check, feet, nails, palpate for tumors over whole body

Physical Examination

- ◆ Musculoskeletal system
 - ◆ Stance, palpate bones, spine, joints, toes
 - ◆ Check range of motion, crepitis, pain
 - ◆ Muscle symmetry, atrophy, masses
 - ◆ Movement, stride, lameness

Physical Examination

- ◆ Abdomen
 - ◆ Enlargement, fluid, mass, muscle tone
 - ◆ Kidney-size, shape texture
 - ◆ Liver/spleen
 - ◆ Intestines – pain turgor, constipation, masses
 - ◆ Bladder-stones, wall thickness, pain

Physical Examination

- ◆ Anogenital
 - ◆ Palpate testicles
 - ◆ Examine urethra, prepuce, vulva
- ◆ Always perform rectal exam
 - ◆ Check urethra, pelvis, anal sacs, anal tone

Physical Examination

- ◆ Cardiopulmonary
 - ◆ Auscult all valvular areas –left AND right
 - ◆ Check pulse simultaneously
 - ◆ Listen to all lung areas – check for stridor, elicit cough

Laboratory Examination

- ◆ CBC
- ◆ Profile
- ◆ Urinalysis
 - ◆ Save for culture or further dx
- ◆ Heartworm/fecal check
- ◆ Thyroid profile

Geriatric Screening Tests

- ◆ Baseline thoracic and abdominal radiographs every few years
- ◆ Baseline ECG

Client Education

- ◆ Bonded clients
- ◆ Human healthcare emphasis

Client Education

- ◆ Owners can watch for:
 - ◆ Behavior changes
 - ◆ Appetite/thirst changes
 - ◆ Abnormal urination/defecation
 - ◆ Body weight or condition change
 - ◆ Activity level changes
 - ◆ Stiffness or lameness

Client Education

- ◆ Owners can check for:
 - ◆ Abnormal odors
 - ◆ Skin lumps, masses, or sores that do not heal
 - ◆ Coughing and sneezing
 - ◆ Vomiting, diarrhea, or constipation

Client Education

- ◆ Preventative care
 - ◆ Dental cleaning and home care
 - ◆ Grooming and bathing
 - ◆ Screening tests
 - ◆ Weight management, diet, supplements
 - ◆ Exercise
 - ◆ Immunizations
 - ◆ Parasite control

End of life issues

- ◆ Quality of life
- ◆ Hospice care
- ◆ Support and assistance in facing pet loss

Geriatrics

- ◆ Most have complex and interwoven problems
- ◆ Estimated 15% of patients over 11 years
- ◆ Behavior problems and illness often overlap
- ◆ Problems not “curable”, but often require management
- ◆ Bonds are strong and client want info

Geriatric Behavior Problems

- ◆ Almost half of pets over 11 years show some behavioral changes
- ◆ Get thorough history
 - ◆ May use questionnaire
- ◆ Pain may add to aggression/anxiety
- ◆ Decreased sensory function
- ◆ Urinary, endocrine, or GI disorders may cause housesoiling as well as behavior

Geriatric Behavior Problems

- ◆ Cognitive function declines with age
 - ◆ Beta-amyloid accumulates in brain
 - ◆ See disorientation, altered sleep/wake cycle, soiling, decrease in social interactions
 - ◆ Progressive

Geriatric Behavior Problems

- ◆ Behavioral modification
- ◆ Pharmacologic intervention
 - ◆ Depranyl
 - ◆ Others being studied
- ◆ Address medical problems
- ◆ Adjust environment
- ◆ Maintain healthy relationship

Geriatrics

- ◆ “Golden years”
 - ◆ Gratifying and challenging
 - ◆ Important part of practice
 - ◆ Relationship
 - ◆ Practice builder
 - ◆ Special time for client
 - ◆ Knowledge and preparation great aid in relationship and early intervention