The Geriatric Pet in the ER

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Geriatric pets make up a large percentage of cases that are seen on urgent or emergent basis. Clearly, most older pets are part of the family for an extended length of time, and any illness or injury may be met with more profound emotional responses than for younger pets where the family is less likely to have life or death decisions. As with all families, with healthy older pets it can be reasonable to develop a "living will"; where the family discusses ahead of time what their companion becomes ill. Specifically, it may be useful to explain that typical causes of death in older animals include organ failure, cancer, and severe arthritis.

Initial guideline for phone triage of older pets should include more aggressive advice to have the patient evaluated. While a young Labrador might tolerate a day or two of vomiting without complications, an older dog may not be able to tolerate dehydration without progressive decline in renal function. Owners should obviously be encouraged to have a close relationship with their primary care veterinarian. There is less evidence of exactly what is age-appropriate screening tests, but in general physical examination at least yearly and at any point where there is evidence of disease. Baseline laboratory tests are warranted if possible, at the very least assessing hematocrit, creatinine and liver enzymes. Patients on chronic medications, including NSAIDs, should be more regularly evaluated. Some owners and clinicians are keen to more completely evaluate patients; individualized screening tests may be indicated for certain patients or recommended as a hospital policy. Emerging screening testing include NT-pro BNP for cardiac disease in both cats and dogs, and SDMA for early detection of renal disease. More specialized testing may only be available at certain reference laboratories (eg. IDEXX versus Antech, versus local reference lab). As with all testing, it is prudent to have a plan as what you might do with a positive result in an asymptomatic patient.

Frailty

Concept of FRAIL is important to discuss in relation to older pets. Frailty is a concept that is widespread in people, and had just begun to be evaluated in dogs and cats. Frailty refers in people to the syndrome associated with unintentional weight loss, lack of energy, lack of

strength, slow gait and low activity. Frailty in people is associated with increasing risk of death, and longer hospitalization times. In animals, while frail dogs and cats are regularly seen, the impact of this aging in outcomes in cats and dogs is less well-recognized.

Emergency presentations for geriatric pets can be divided several ways. One easy way to divide them is to separate new presentations from presentations for progression of pre-existing disease. As with all emergencies, prompt triage (assessment for evidence of abnormalities with the heart, brain or lungs) is warranted even in the family thinks it is clear what the problem is.

Pre-existing disease

Common pre-existing disease that may worsen include:

Renal failure – Patients with renal disease may present with worsening azotemia, typically magnified by vomiting, anorexia and dehydration. This may be termed acute on chronic renal failure. The major points for managing worsening renal function include replacing any hydration deficits, and evaluating for evidence of urinary tract infection. Emerging trends in renal medicine are recognizing that the goals for fluid therapy is to replace deficits and to ensure adequate hydration. There is no specific benefit to extra fluids and diuresis alone is not beneficial to improving kidney function.

Congestive heart failure – CHF is common in small breed dogs due to valvular disease, and in larger dogs with DCM. Cats commonly have hypertrophic cardiomyopathy. Urgent assessment includes determining the need for more diuretics or other increased therapies, and/or determining in azotemia is present. Heart disease is progressive, but the time frame can be variable, as can the response to therapy. Diet history (particularly salty foods) is warranted, and consideration for additional therapies if heart failure has worsened, or decreased diuretics if azotemia is more a concern than respiratory distress.

Pulmonary disease – Pulmonary diseases that may exacerbate include tracheal collapse/ chronic bronchitis syndrome, as well as laryngeal paralysis and polyneuropathy complex in larger dogs. Heat stress may magnify these conditions, as well as secondary infections.

Arthritis – Arthritis may appear to acutely worsen, but in most cases there is actually a slow progression of disease, where one day the pet appears much worse, although to the veterinarian, the dog is far worse than at the last visit. Infection (either septic joint or urinary tract) may also result in worsening of the lameness. Additionally, pathologic fractures may occur in association most typically with osteosarcoma.

Cancer – Prior diagnosis of cancer may or may not be relevant in the treatment of the older pet; some cancers (eg. Grade I mast cell tumors) are effectively surgically cured, while other cancers may have recurrent or metastatic complications. Owners that have previously treated a pet for cancer may be more inclined to pursue further therapy.

Neurological disease – Late onset seizures in dogs is more often indicative of systemic disease or brain tumor/

Acute collapse

Acute collapse in older dogs commonly represents bleeding, most typically in to the abdomen (eg. Splenic mass) or pericardium. Point of care ultrasound (POCUS) has tremendously improved the ability of primary care practices to urgently detect hemorrhage/ fluid into body cavities. All older animals with collapse should be evaluated for internal hemorrhage or pericardial effusion. Classical clinical signs include anemia without hypoproteinemia (due to acute loss) for hemoabdomen, and pulsus paradoxus with pericardial effusion. Importantly, many of the older dogs with hemoabdomen have a recent clinical history of PU/PD for a few days or resolved lethargy, likely associated with smaller bleeds.

Trauma

Trauma is less common in older pets, but may occur due to fall or accidently injuries (eg. Backed over in driveway). Similar to older people, elderly pets will recover from trauma, but it may be that the recovery time is a bit longer than a young pet. Additionally, it may be that co-morbidities affect anesthesia or even the owner's goals on proceeding. For example, a 14 year Labrador with severe arthritis in all 4 legs may have much more difficulty and require increased nursing care to recover from pelvic fractures than a 1 year Labrador. Additionally, it is possible that any injuries that originally were considered trauma could represent neoplasia (such as the fractured leg from a fall from a short distance.

Summary

1. **Geriatric pets should be evaluated on emergency with any concerns.**
2. **Urinary tract infection in older pet may result in systemic signs of weakness or fraility.**
3. **Chronological age is less important that physiological age.**
4. **Treatment of senior pets is often very rewarding and age alone should never be a reason not to pursue therapy if otherwise indicated.**

Further reading

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