FELINE ASTHMATIC OR CANINE BRONCHITIS PATIENT PRESENTED

Exacerbation of asthma or bronchitis present with airway constriction causing respiratory distress?

**YES**

Ensure patient can breathe
- Immediately dilate airways to provide respiratory relief
- Provide injectable steroid and either inhaled or injectable bronchodilator (see Types of Inhaled Medication, next page)
  - Administer injectable medications (ie, dexamethasone [0.1-0.5 mg/kg IM or IV], terbutaline [0.01 mg/kg IM or SC]) in clinic.
  - Inhaled bronchodilator (ie, albuterol/salbutamol [1-2 puffs every 30 min for ≤4-5 h]) may be administered in clinic or at home by owner.
- Owners unable to regain control at home should bring their pet to the clinic for veterinary care

Reduce ongoing airway inflammation
- Provide 10-day, short-term course of systemic steroids
  - Cats: prednisolone (1-2 mg/kg every 24 h)
  - Dogs: prednisone (0.5-1 mg/kg every 24 h)
- Review environmental factors and make modifications to reduce potential triggers
- Ensure pet owners understand corticosteroids are considered a mainstay of treatment and may be administered orally or via injection or inhalation; inhaled forms help limit systemic absorption (see Adverse Effects of Systemic Steroids, next page)
- Owners already providing inhaled steroids to their pet and who treated exacerbation with albuterol can continue with inhaled steroid therapy; those currently using other forms may consider transitioning to inhaled corticosteroids

**NO**

Ensure patient can breathe
- Immediately dilate airways to provide respiratory relief
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TRANSITION TO INHALED STEROIDS

Taper systemic steroids and introduce inhaled steroids
- Fluticasone
  - Cats and dogs ≤44.1 lb (20 kg): 1 puff (110 µg) every 12 hours
  - Cats with more serious disease may require 220 µg every 12 hours
  - Dogs >44.1 lb (20 kg): 1 puff (220 µg) every 12 hours
- Fluticasone/salmeterol
  - Cats and dogs ≤44.1 lb (20 kg): 1 puff (115 µg/21 µg) every 12 hours
  - Dogs >44.1 lb (20 kg): 1 puff (230 µg/21 µg) every 12 hours
- Overlap systemic and inhaled therapy for 2 weeks
- Inhaled steroids may require 2 weeks to take effect

MAINTAIN DISEASE CONTROL

Use maintenance therapy to control inflammation and prevent exacerbation
- Continue daily therapy for management of clinical signs
  - Fluticasone
    - Cats and dogs ≤44.1 lb (20 kg): 1 puff (110 µg) every 12 hours
    - Cats with more serious disease may require 220 µg every 12 hours
    - Dogs >44.1 lb (20 kg): 1 puff (220 µg) every 12 hours
  - Fluticasone/salmeterol
    - Cats and dogs ≤44.1 lb (20 kg): 1 puff (115 µg/21 µg) every 12 hours
    - Dogs >44.1 lb (20 kg): 1 puff (230 µg/21 µg) every 12 hours
- Cat owners can administer inhaled bronchodilators during flare-ups secondary to exposure to triggers
  - Albuterol/salbutamol: 1 to 2 puffs as needed
    - Albuterol is a rescue medication and should not be used as monotherapy
    - Little evidence exists for effectiveness of albuterol therapy to manage canine bronchitis
TYPES OF INHALED MEDICATION

▶ Corticosteroids (eg, fluticasone, mometasone, budesonide)
  • Reduce airway inflammation and mucus production
  • Used for ongoing management of conditions even in absence of clinical signs

▶ Bronchodilators
  • Open airways by relaxing smooth muscles to reduce bronchoconstriction
  • Not to be used as monotherapy
  • Available in short-acting and long-acting formulations
    – Short-acting formulations (eg, albuterol, salbutamol)
      • 4- to 6-hour duration
      • Are considered rescue medications; may help coughing flare-ups and limit need for clinic visits
    – Long-acting formulations (eg, salmeterol)
      • 12-hour duration

▶ Combination inhalers (eg, fluticasone/salmeterol, budesonide/formoterol, mometasone/formoterol)
  • Often a combination of inhaled corticosteroids and long-acting formulations
  • Reduce inflammation and relax smooth muscle
  • Indicated for disease management, not rescue
  • May be used as a step-up therapy

ADVERSE EFFECTS OF SYSTEMIC STEROIDS

▶ Behavioral changes, including aggression
▶ Lethargy
▶ Increased thirst and urinary incontinence
▶ Increased risk for infection (eg, UTI)
▶ Diabetes mellitus
▶ Weight gain/obesity
▶ Vomiting/diarrhea
▶ Iatrogenic hyperadrenocorticism
▶ Immunosuppression

References

VIEW
To view this management tree online or for a mobile-friendly version, please see cliniciansbrief.com/article/managing-feline-asthma-canine-bronchitis