



EMERGENCY MEDICINE:

Peritonitis

Definition	Peritonitis is the inflammation of the peritoneal lining. This inflammation can affect the omentum, visceral and parietal peritoneal surfaces.
Pathophysiology	The etiology can be grouped into chemical, septic, or a combination of chemical and septic peritonitis. Chemical peritonitis is due to a sterile irritation caused by substances such as urine, bile and pancreatic enzymes. The inciting causes for chemical peritonitis include trauma, infection and neoplasia. Septic peritonitis is due to free bacteria in the abdominal cavity. The most common causes for septic peritonitis include perforating foreign bodies, necrosis of the gastrointestinal tract from obstruction, gastric dilation with volvulus, gastrointestinal bacterial translocation, intussusceptions and/or erosive neoplasia. Other organs responsible for septic peritonitis include the liver, kidney, prostate and uterine infections.
History	Animals with peritonitis typically present with non-specific histories of anorexia and lethargy. Vomiting, diarrhea and hunched posture or wide-based posture with arched back and lowered front posture (praying posture) can be noted.
Clinical Signs	Patients can be ambulatory or recumbent and are often in compensatory or decompensatory shock (weak pulses, bradycardia/ tachycardia, CRT < 1 sec or <2.5 sec), with dull mentation, and may or may not be febrile or jaundiced. The abdomen can be tense to painful and fluid wave may be present.
Diagnosis	Diagnosis is made using results from a CBC, biochemical profile, and lactate +/- coagulation panel. Abdominal radiographs looking for signs of free air-septic peritonitis, foreign body, GDV, intussusceptions, mesenteric torsion are helpful along with an abdominal ultrasound if available. Abdominocentesis and fluid cytology with analysis (protein, pack cell volume, creatinine, bilirubin, and amylase) or diagnostic peritoneal lavage supports the diagnosis.
Treatment	Treatment includes fluid and electrolyte support (crystalloid +/- colloids or Fresh Frozen Plasma), broad spectrum antibiotics, and pain medications such as opioids. Surgical intervention is needed for septic peritonitis, bile peritonitis and uroabdomen. Medical treatment is used for pancreatitis.
Prognosis	The prognosis is guarded to grave. Chemical peritonitis has a better prognosis than septic peritonitis. Factors influencing survival include early presentation and recognition of condition and treatment.
Questions?	Our 24/7 Emergency and Critical Care service is open year round and staffed by excellent doctors and technicians. MVS attracts the top veterinarians from Canada and the United States for its positions and the ER doctors have access to specialists 24 hours a day, 7 days a week.

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