

Exudative peritonitis associated with fungal infection in a German shepherd dog

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Introduction: Peritonitis caused by fungal infection in the abdominal cavity is uncommon in dogs. The present case describes the diagnostic examination results and treatments of fungal peritonitis.

Materials and methods: An approximately two-year-old, intact female German shepherd weighing 36 kg was presented with abdominal distension, pyrexia and anorexia.

Results: Results of the complete blood counts and serum biochemical test showed neutrophilia, hypoproteinemia, and hypoglycemia. Diagnostic imaging tests revealed ascites. The ascitic fluid was exudate characterized by appearance of dominant polymorphonuclear cells. Round-shaped bacteria were also detected. A tentative diagnosis as septic peritonitis was made on the basis of the examination findings. To investigate the cause of abdominal inflammation, the exploratory laparotomy was performed. The infection routes such as ruptured organ were not found. Fungal hyphae invading into tissues with granulomatous reaction were observed in the histopathological examination of mesenteric tissues. Based on these findings, the dog was diagnosed as fungal peritonitis with bacterial infection. The dog was hospitalized for intensive care. An initial regimen was consisted of cefotaxime (50 mg/kg, IV, TID), and terbinafine (30 mg/kg, PO, SID). One week later, the dog's condition was improved. She was discharged 14 days after admission.

Clinical relevance: The information provided in this case suggests that the fungal infection can be also developed to the exudative peritonitis in dogs. If a few of suspicious index is still present, appropriate diagnostic procedures including exploratory laparotomy, fungi culture and histopathological examination should be performed.

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