

Salmonella typhimurium endocarditis and myocarditis in a cat

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Abstract

An 8-month-old neutered male outdoor cat was brought to our clinic for a sudden onset of diarrhea, pyrexia, and lethargy. Physical examination revealed a loud left parasternal systolic murmur with no thrill. An echocardiogram showed large hyperechoic vegetation (about 9 mm thick) on the aortic valve leaflets. The results of Doppler ultrasound examination were compatible with severe aortic stenosis. A singular urine culture test performed by cystocentesis samples enabled the isolation of more than 10^5 CFU/ml in a pure culture of *Salmonella typhimurium*. Enlarged mesenteric lymph nodes and moderate dilatation of small bowel loops were found on abdominal ultrasound examination. The patient was treated with marbofloxacin (2 mg/kg IM every 24 hours), cefazoline (20 mg/kg SC every 12 hours), metronidazole (10 mg/kg IV every 12 hours), clopidogrel (18.75 mg PO every 24 hours), atenolol (0.5 mg/kg OS every 12 hours), and fluid therapy (ringer acetate 2.5 ml/kg/h), but after three days in hospital the patient died from presumed septic shock. A urine culture revealed that *Salmonella typhimurium* was sensitive to third generation cephalosporins but not to fluoroquinolones. Necropsy, histologic examinations, culture of the aortic valve and PCR analysis of the aortic valve leaflets were eventually performed and *Salmonella typhimurium* endocarditis with myocardial phlegmon was confirmed. Urinary excretion of *Salmonella typhimurium* during the bacteraemic phase constitutes a potential zoonotic risk to human health. To the best of the authors' Knowledge, this is the first report of *Salmonella Typhimurium* endocarditis and myocarditis in cat.

Biography:

Andrea Vercelli graduated in veterinary medicine, specializing in internal medicine, biochemistry and laboratory medicine. He carries out his professional activity in Turin, dealing with cardiology and internal medicine of small animals.

Publications

1. Palermo JS, Jones A.E., Ward J.L., Balakrishnan N., Linder E., Breitschwerdt E.B., Keene B.W. (2016) Infective endocarditis in 13 cats. *J Vet Cardiol* 18:213-225.
2. Dixon-Jimenez A, Margiocco ML (2011) Infectious endocarditis and chylothorax in a cat. *J Am Anim Hosp Assoc* 47:121-126.
3. Duval X, Delahaye F, Alla F, et al. +, and the AEPEI Study Group (2012) Temporal trends in infective endocarditis in the context of prophylaxis guideline modifications: three successive population- based surveys. *J. Am Coll Cardiol* 59:1968-76.
4. Slipczuk L, Codolosa JN, Davila CD, et al. (2013) Infective endocarditis epidemiology over five decades: a systematic review. *PLoS One* 8(12):e82665.
5. Koenig A, Cooper TL, Greene CE, Sharma A, Sakamoto K (2017) Clinical Salmonellosis in a Closed Colony of Blood Donor Cats. *Comp Med* 67(6): 524-528.



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Citation: Andrea Vercelli, *Salmonella typhimurium* endocarditis and myocarditis in a cat, Euro Immunology 2020, European Congress on Immunology, Edinburgh, Scotland, March 4 -5 , 2020, 02