Pericardial tamponade caused by *Pasteurella multocida* infection after a cat bite

A K Al-Allaf, T C Harvey, A R Cunnington

Abstract
An unusual case of meningitis and pericardial tamponade caused by *Pasteurella multocida* after a cat bite is reported. The patient was successfully treated by antibiotics and pericardiocentesis and made an uneventful recovery from a life-threatening condition. This case illustrates the potential dangers that can arise from a seemingly trivial and commonplace injury.

Keywords: pasteurellosis; pericardial tamponade; cat bite

Case report
A 62 year old woman was admitted with a 48 hour story of headache, neck stiffness, central pleuritic chest pain relieved by sitting forward and made worse by lying flat, fever, rigors, and drowsiness. Four days earlier she had been badly mauled by a stray cat and had sustained bites and lacerations to her right wrist.

On examination she was unwell, drowsy, dehydrated, and had a fever of 39.8°C. She had an obviously inflamed bite and scratch marks on her wrist with local cellulitis. Her blood pressure was 106/59 mm Hg, pulse 84/minute, and oxygen saturation was 96%. Heart sounds at this stage appeared normal with no murmurs or rub and chest examination was clear. There were no focal neurological signs but she was drowsy and confused and the provisional diagnosis was of meningoencephalitis but she was drowsy and confused and the provisional diagnosis was of meningoencephalitis.

Her subsequent progress was uneventful. She regained consciousness and went on to make a good recovery over the next two weeks.

Learning points
- Pasteurellosis is a common infection after animal bite.
- Infection may range from trivial local inflammation to life threatening septicaemia with multiorgan involvement.
- Pericardial tamponade should be considered in treating critically ill patient with this infection.

Figure 1  A 12 lead electrocardiogram on admission shows ST elevation with upward concavity suggestive of acute pericarditis.
promise in the form of severe hypotension or electromechanical dissociation. If the fluid in the pericardium is not quickly removed, the patient will die from cardiogenic shock. The diagnosis is made from the clinical history, physical findings, and radiological and electrocardiographic suspicion and is easily confirmed by echocardiography.

Pasteurellosis, a zoonosis, is caused by a Gram negative coccobacilli found in the nasopharynx and gastrointestinal tract of many animals. About 50%–90% of domestic cats and dogs carry pasteurella species in their saliva and nasal tract and the organism is frequently found in injuries from cat scratches (75%) and dog bites (50%).

Pasteurella multocida may cause local wound infections in man as a result of contact with animals and serious systemic infection and septicemia has been reported including endocarditis, pericarditis, polyarthritis, and death. This case is believed to be the first reported instance of pasteurella pericardial tamponade.

The interesting aspect about this illness is that it was caused by a cat bite. This emphasises the importance of considering this unusual infection in all animal inflicted injuries.

5 Jenkins R. Pensioner killed by cat she rescued. The Times 2 October 1999.
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