Chylothorax in a cat

A 10-year-old male cat was presented with severe dyspnoea of fairly recent onset. Thoracocentesis was performed for therapeutic as well as diagnostic purposes and it revealed that a milky-white fluid had accumulated in the thorax. Either chylothorax or pseudo-chylothorax was suspected. The fluid did not clear when centrifuged, as fluids resulting from other aetiologies would have done, but this test did not differentiate chyle from pseudochyle.

Samples of serum and of the thoracic effusion were submitted to a laboratory for determination of cholesterol and triglyceride values (Table 1). These values indicated true chyle, since compared to normal serum values the effusion contained high levels of triglyceride, while cholesterol was within normal limits. Pseudochyle is indicated by normal triglyceride values and elevated cholesterol in comparison to serum. When the effusion was refrigerated and allowed to stand overnight, a cream-like layer formed, another feature that distinguishes chyle from pseudochyle. Finally, when ether was added to the effusion the milkiness dissipated and the fluid became clear (Fig. 1).

Thoracic radiographs were diagnostically uninformative owing to the considerable amount of fluid in the thoracic cavity, even after thoracocentesis. Since the owner refused surgical intervention, the cat was treated conservatively. After the thorax had been drained, the cat was breathing normally and was discharged.

It was placed on a low-fat diet (Hills r/d), amoxycillin tablets (Clamoxyl 40, Pfizer) and sodium pentosan polysulphate tablets (Tavan-SP, Ethimed), the last since it is claimed to be beneficial in cases of hyperlipidaemia.

Nine days later the cat returned with severe dyspnoea. Thoracic drainage was again performed, and in addition to the above medication, furosemide was administered (Puresis, Pharmacare).

Twenty-one days later the cat returned with dyspnoea and there was marked loss of condition. The owner requested euthanasia. At necropsy, no intrathoracic neoplasms or lesions of the thoracic duct were revealed. Multiple white intrathoracic nodules approximately 2 mm in diameter were, however, observed.

Histopathological examination revealed that these nodules consisted of masses of lymphocytes and macrophages, which were considered to constitute an inflammatory response (G Louw, Department of Anatomy and Cell Biology, Medical School, University of Cape Town, pers comm.).

Since the aetiology of this case of chylothorax could not be determined, it must be regarded as idiopathic.

REFERENCES

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Versternema struthionis in ostriches: is there an association with peritonitis?

Versternema struthionis is an internal parasite of ostriches. This helminth was described for the 1st time in 1976 and was later found in wild ostriches in Botswana. It is an archaic filariid with no distinctive characteristics. These filarids are free-living in the abdominal cavity, usually in the region of the ovary or testes. I have also observed them among the intestines.

During 1996 I found the first specimens in 2 approximately 14-month-old
ostriches presented for routine slaughter. The worms were associated with light peritonitis. Dr W P Burger of KKK Laboratory identified them as *V. struthionis*.

Some months later a breeding ostrich was presented for salvage slaughter after having died on the farm. The conclusion I reached from necropsy was that the ostrich had died as result of severe peritonitis, and once again *V. struthionis* was present in large numbers among the intestines. There was no indication of penetration of the gastrointestinal tract by a foreign object, and no foreign objects were present in the intestines. The owner, upon closer questioning, said that he did not deworm his breeding ostriches. He was advised to do so, as *V. struthionis* appears to be highly sensitive to regular anthelmintic treatment.

One filariid sent to Dr F Malan, Hoechst Experimental Farm, Malelane, was submitted to Prof. J Boomker, Medical University of Southern Africa, who confirmed the identification as *V. struthionis*.

During this period, peritonitis associated with these worms was again found in a routinely slaughtered ostrich. No foreign objects were present in the gastrointestinal tract or abdominal cavity. I have subsequently occasionally found these helminths in routinely slaughtered ostriches, sometimes but not always associated with peritonitis.

What interests me is the association of the helminths with peritonitis. Apparently this has never been described before. Could these helminths, when present in large numbers, irritate the body so much that peritonitis results?

I would like to know whether anyone else has found *V. struthionis* in ostriches, and in particular whether they have observed them in association with peritonitis of uncertain origin.

I am grateful to Drs W P Burger and F Malan and Prof. J Boomker for identifying the parasite.

**REFERENCES**

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