

■ ■ INFECTIOUS DISEASES

Brucella infection in marine mammals in Antarctica

Infection with *Brucella pinnipedialis* and *Brucella ceti* in marine mammals of the northern hemisphere has been extensively reported. In Chile, the National Antarctic Institute (INACH) and the University of Chile have developed a collaborative study establishing the presence of anti-*Brucella* antibodies in Antarctic fur seals (*Arctocephalus gazella*) and Weddell's seals (*Leptonychotes weddellii*) (Retamal and others 2000), being the first evidence of *Brucella* infection in marine mammals in the southern hemisphere.

Since then, our efforts have been focused on the bacterial isolation from tissues of dead animals found in Antarctica. These have so far been unsuccessful, probably because of difficulties in adequately preserving the samples during the time between sampling and arrival at the laboratory. Meanwhile, we have continued to look for serological evidence of *Brucella* infection in samples of marine mammals.

Using the same competitive ELISA described previously (Retamal and others 2000) we analysed samples from 65 animals (including sera and pleural, peritoneal and pericardial fluids) obtained from Antarctic fur seals (52) and southern elephant seals (*Mirounga leonina*) (13) living in Cape Shirreff, Livingston Island, Antarctica. We determined the presence of antibodies against *Brucella* species in four animals (6.2 per cent), all of them Antarctic fur seals.

It is interesting to note that in two animals, the antibodies were detected in pleural, peritoneal and pericardial fluids. Considering our previous report, this finding suggests that Antarctic fur seals have a higher rate of infection than other susceptible species tested in Antarctica, although more studies are needed to clarify the epidemiology of *Brucella* infection on this continent.

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Reference

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D. (2000) Detection of anti-*Brucella* antibodies in
pinnipeds from the Antarctic territory. *Veterinary Record*
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