Seal Finger: occurrence in Antarctica

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Two cases of seal finger "spekkfinger" contracted in Antarctica are described. The successful treatment of the disease and recommendations for the prevention of seal finger are given.

Twee gevalle van "spekkfinger" wat in Antarktika opgedoen is word beskryf. Die suksesvolle behandeling van die siekte en aanbevelings vir die voorkoming van "spekkfinger" word gegee.

Introduction

Seal finger (spekkfinger or blubber finger) has been described in medical literature since 1907 (Candolin 1953). Seals and possibly polar bears are the only known carriers (Beck & Smith 1976). Although seal finger was common in the Norwegian seal fleet (Waage 1950) operating in Greenland (Rodahl 1952) and at the Pribilof Islands (Skinner 1957), only two previous cases have been reported from Antarctica (Liavaag 1940). This report is intended to bring the symptoms and treatment of the disease to the attention of biologists working with seals and of medical personnel in Antarctica and the sub-Antarctic.

Seal finger is described as a sub-acute, severely painful, localised infection of the fingers (Skinner 1957). The symptoms are a sudden, extremely painful swelling of the finger with the skin becoming reddish with a tight shiny appearance. The patient complains of severe local pain and stiffness in the neighbouring joint (Rodahl 1943, 1952).

The etiology and pathogenesis of the disease are not presently known. The infectious agent has been assumed to enter the finger through small cuts in the skin.

Occurrence and Treatment

Four members of the Mammal Research Institute, University of Pretoria, collected data and specimens from 21 Ross seals (*Ommatophoca rossi*) in the Antarctic pack ice between 70°24′S, 4°54′W and 69°58′S, 3°57′E from 15 to 20 January 1982. The work involved dissection and contact with most types of tissues from the seals. The biologists worked in teams of two, each team being responsible for the complete processing of a seal. Both members of one of the teams contracted an infection whose symptoms resembled those of seal finger. Since the other team was unaffected it may be assumed that the infection was picked up simultaneously from an affected seal.

The first case was noticed some seven days after the last seal was processed. The proximal joint of the index finger became swollen, pink and painful. This condition persisted for 28 days until treated with Vibromycin which cleared the infection after 11 days. The second case appeared 41 days after the last seal was processed. The infection appeared in the distal joint of the forefinger and after three days the swelling was marked. Attempts to straighten the finger were painful. This case was treated with intravenous injection of Auromycin and Ledermycin capsules were taken orally for seven days, after which the infection cleared.

Amputation of the infected finger was often resorted to before an effective drug treatment became available. In the 1950's penicillin was tried but proved ineffective. 'Rivanol' was found to be successful (Rodahl 1952). Seal finger has also been successfully treated with antibiotics such as Achromycin (Beck & Smith 1976), Vibromycin and Ledermycin (present cases).

Recommendations

Work on a variety of seal species forms part of South Africa's research effort in Antarctica and the sub-Antarctic. In view of the permanent disability which can result from seal finger if it is not promptly diagnosed and correctly treated, the following recommendations are put forward:–

- all biologists working with seals should be made aware of the nature of the disease and the necessity for prompt treatment (neither of those infected in the present case had even heard of seal finger),
- medical staff at Antarctic and sub-Antarctic stations and on research vessels should be familiar with the disease's symptoms and its treatment,
- suitable drugs should be readily available wherever work on seals is carried out.

References

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