



CASE REPORT OBSERVATIONS DE CAS

Sealer's finger

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INTRODUCTION

The people of Newfoundland continue to make a living from the ocean, and the seal hunt is an occupation and source of livelihood for Newfoundlanders in many rural areas of the province. Occupational injuries have always been associated with this fishery. We present a case of sealer's finger (or seal finger) that was recently seen at a hospital in rural Newfoundland. This condition is known as "Spekk-finger" or "blubber-finger" in Norwegian literature. Sealer's finger is a severe finger infection observed in sealers, who can acquire the infection by accidentally cutting themselves with a knife used to clean seal carcasses or by contact of seal pelts to small breaks in the skin of the hand. Delay of diagnosis or treatment of sealer's finger can result in permanent stiffness or loss of the affected finger. The disease progresses from a cellulitis, to arthritis with eventual joint dissolution and healing by ankylosis.¹ Because of improved access to health care these severe side effects are not often seen. In the historical setting, it was, however, often the case, as sealers on ships at sea were isolated from medical resources and adequate treatment. The causative bacterial agent is presumed to enter the finger through small cuts in the skin, and the symptoms may develop after an incubation period varying from 3 to 21 days.² We present this case as a reminder that this occupational disease continues to exist.

CASE REPORT

A 33-year-old man recently presented to the rural hospital emergency depart-

ment (ED) with pain and erythema of the left thumb, of 2 days duration. Vital signs, including temperature, blood pressure, respiratory rate and heart rate were all within normal limits, and the patient was clinically stable. There was decreased range of motion (flexion, extension, adduction, abduction, opposition) and marked tenderness over the thumb of the left (non-dominant) hand. Skin over the entire left thumb was red, taut, warm, edematous and non-suppurative. The patient had suffered a laceration on the affected digit 2 days before presentation. Holding his knife with his right (dominant) hand the patient had cut his left thumb accidentally while skinning a seal. This produced a laceration roughly 1 cm long. In the ED the laceration was cleansed with antiseptic, and sterile dressing was applied over the wound area. Treatment consisted of tetracycline 500 mg *PO q.i.d.* for 14 days, a commonly used protocol for sealer's finger at this hospital. The patient was given the medication and sent home. At follow up 2 weeks after presentation, the swelling and redness had subsided, normal range of motion had returned to the thumb; the patient made a full recovery.

DISCUSSION

Sealer's finger is a condition that is not uncommon to certain parts of rural Newfoundland, where it is seen in the local ED during the short seal hunt in the spring. The specific bacteria that causes this infection is unknown, but certain species of *Micrococcus* have been implicated.³ Bacteria likely invade through small cuts on the sealer's hand. It has been found that a high percent-

age of affected digits occurred on the index and middle fingers of the left hand of sealers,¹ suggesting that the bacteria were possibly acquired through the practice of inserting these fingers through the eyes holes (palpebral fissures) of the seal pelts, when carrying them.¹ In a study of 244 patients only 22 subjects were unable to recall a pre-existing break in the skin.⁴ In the early and mid-20th century sealers would request that the finger be amputated because otherwise the disorder would keep them from working during the short sealing season.¹

Not only sealers

Sealer's finger is commonly seen in seal hunters but is also seen in those who care for or study seals, such as wildlife workers and biological researchers.^{5,6} Many of the case reports document how sealer's finger may be acquired by the bite from a seal.⁵ This disease has even been associated with handling of an anesthetized polar bear with tooth abscesses.⁷

Treatment

It is the opinion of the second author, based on clinical experience and supported by other publications in the literature, that injuries of this etiology should be treated with the tetracycline^{5,6} or its chemical derivative, deoxycycline. In our local hospital deoxycycline 100 mg *PO q.i.d.* for 14 days has been successfully used in the treatment of this condition. In the situation of a more serious case of sealer's fin-

ger, when inflammation extends to the other digits or wrist, a third generation cephalosporin, administered intravenously, is used in addition to one of the previously mentioned oral antibiotics.

Precautions

Case reports show that a delay in appropriate treatment due to lack of awareness by primary care physicians of sealer's finger, can lead to unnecessary loss of function due to permanent stiffness.⁵ Our recommendations for the prevention of sealer's finger include education of the condition among seal fishers and ships' officers having an adequate supply of antibiotics on board to treat the condition at sea, after telephone contact to a physician. Pelt handlers should use gloves and ensure adequate dressing and treatment of all minor flesh wounds on the hands, to help prevent acquisition of sealer's finger.

Competing interests: None declared.

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