

AEROMONAS INFECTION FOLLOWING A SNAKE BITE: A CASE REPORT

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INTRODUCTION

Aeromonas hydrophila is being increasingly identified as a primary pathogen in human, both in immunocompromised and in normal individuals. The organism has been isolated from a wide variety of sources, including water, soil, animals and humans. The occurrence of *Aeromonas hydrophila* skin and wound infections in healthy hosts following water-associated injury has occasionally been noted (Freij, 1984). The purpose of this communication is to report a case of *Aeromonas* infection following a snake bite.

CASE REPORT

A twelve year-old Thai boy was admitted to Chulalongkorn Hospital, Bangkok in August 1986. Five days before admission he was bitten on the right middle finger by an unidentified snake while trying to catch a bull-frog on a marshy ground. He was brought to a private hospital where the wound was cleaned and no antimicrobial was given. On the following day his right arm became fulminantly infected with skin necrosis and he also began to have high fever. He was then admitted to a provincial hospital

where he was treated with intravenous cloxacillin and chloramphenicol for three days without improvement so he was referred to Chulalongkorn Hospital.

On admission he was obtunded, his temperature was 37.5°C, pulse rate 132/min, respiration 44/min and blood pressure 130/70 mmHg. His right arm was inflamed and hemorrhagic blebs were also noted (Fig. 1). Complete blood count showed hemoglobin 9.2 gm%, white blood count of 12,850 cells/c.mm. with 93% neutrophils, 7% lymphocytes, platelet count was 76,000 cells/c.mm. Gram stain of the aspirate from the hemorrhagic bleb was negative. Blood coagulogram and fibrinogen levels were normal. He was treated with penicillin and

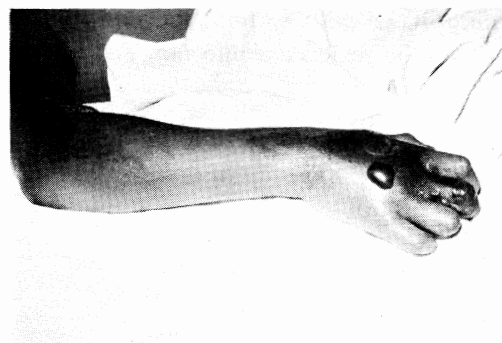


Fig. 1—Hemorrhagic blebs on the right arm.

gentamicin and surgical drainage but his right middle finger became gangrenous and amputation was necessary on the 23rd hospital day. The patient's postoperative recovery was uneventful. Culture of the aspirate from the hemorrhagic bleb grew *Aeromonas hydrophila* which was sensitive to amikacin, chloramphenicol, colistin, co-trimoxazole, gentamicin, kanamycin, netilmicin, piperacillin, tobramycin. It was resistant to ampicillin, cephalothin.

DISCUSSION

Aeromonas skin and wound infections have been commonly reported following aquatic injuries. Other sources of infection include stepping on a piece of fish bone (Thisyakorn and Ningsanond, 1985) or glass, alligator bite, burns (Phillips *et al.*, 1974). *Aeromonas hydrophila* produces several extracellular enzymes and toxins. Fulminant necrotizing soft tissue infection and an unexplained propensity for involvement of muscle have been reported (Deeps and Coonrod, 1980). Hemolysin may be important virulent factors in the pathogenesis of fulminant infections.

Because of its potential for fulminant infection, early recognition of *Aeromonas* infection is needed to prevent serious morbidity. Thus with water-associated injuries followed by evidence of infection *Aeromonas*

hydrophila infection should be suspected since the organism has been isolated from various sources of water (Freij, 1984). Appropriate management includes good local care with debridement as necessary and parenteral therapy with appropriate antimicrobial.

SUMMARY

A twelve year-old Thai boy with fulminating *Aeromonas hydrophila* infection of the right arm following a snake bite was reported. He recovered uneventfully after appropriate antimicrobial therapy and surgical intervention.

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