Successful treatment of necrotizing fasciitis caused by Aeromonas hydrophila

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Introduction:
Aeromonas hydrophila (A. hydrophila) causes necrotizing fasciitis (NF) in cirrhotic patients or immunocompromised hosts. The mortality rate for aeromonas septicemia and NF is 33% or higher. Infection is usually preceded by exposure to fresh or brackish water.

Case Presentation:
A 47-year-old male patient with untreated alcoholic cirrhosis was admitted to our hospital with acute onset of confusion and fever. He had no recent exposure to fresh or brackish water or trauma. On examination, consciousness was GCS E3V4M5, he was febrile to 40.8°C, heart rate 157 beats/min, and blood pressure 137/95 mmHg. Respiratory rate 24 /min and the oxygen saturation 99% while the patient was breathing simple mask 10 L/min. Mild erythema were present on the legs without bullae. CT showed edema of soft tissue on the legs without gas production. The patient was suspected of having NF because of the severity of his condition, but he presented no severe skin lesion. Meropenem, vancomycin and clindamycin (CLDM) were administered with ICU. Prompt exploratory incision of the legs was performed by orthopedists. The fascia was swollen with necrosis and dishwater-gray exudate. The patient was diagnosed with NF and surgically debrided. Gram-negative bacillus was noted in exudate Gram stain. He was administered minocycline instead of CLDM. A. hydrophila was identified from blood culture and the antimicrobial agents de-escalated to ciprofloxacin. Finally, the patient was cured without sequelae.

Discussion:
Early diagnosis and prompt debridement were key to successful treatment in this case. Our patient had suspected NF from his medical history of alcoholic cirrhosis and severely poor general condition, although his mild skin lesions and no history of exposure perhaps indicated otherwise. Our surgical consultant immediately performed surgical exploration as required. Close cooperation with an experienced surgeon and prompt attention to NF are important for successful treatment.