

AEROMONAS HYDROPHILA SEPTICEMIA IN A PATIENT WITH CHRONIC ACTIVE HEPATITIS

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INTRODUCTION

Aeromonas hydrophila inhabits freshwater and soil and is mainly pathogenic to cold-blooded animals. It is known to cause red leg disease in frogs, septicemia and stomatitis in snakes and infections in freshwater fish.¹ Human infections due to members of the genus *Aeromonas* are considered rare and mainly occur in immune compromised individuals or patients who are suffering from chronic disease.² We describe below a case of *Aeromonas* infection in a patient with chronic active hepatitis.

CASE REPORT

A 45 year old man with chronic active hepatitis with evidence suggestive of cirrhosis confirmed by liver biopsy four years previously presented with epigastric pain and high grade fever associated with

chills and rigors. He also had loss of weight with anorexia, pruritus and diarrhoea with passage of pale stools. Clinically, he was jaundiced with mild ankle oedema, spider naevi, hepatosplenomegaly and ascites.

In the ward, patient became afebrile without any specific treatment and he subsequently absconded. He presented two weeks later with generalized vague, abdominal pain and low grade fever. On examination, he was found to be mildly febrile with a temperature of 37.5°C. There was pallor, jaundice, spider naevi and palmar erythema. He was hypotensive with a blood pressure of 95/60 mm of Hg and had a low volume pulse. There was hepatosplenomegaly with ascites and generalized abdominal tenderness.

Diagnostic peritoneal tap and blood cultures were done. Patient deteriorated rapidly within the next 48 hours. He developed bilateral pleural effusions and liver flap and became dyspneic and markedly hypotensive.

He was treated as peritonitis and septicemia with hepatic pre-coma. He was given parenteral gentamicin and cloxacillin. Patient however expired within 48 hours of admission. Subsequently blood cultures grew *Aeromonas hydrophila*.

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DISCUSSION

Aeromonas sepsis usually arises from an endogenous source and in most case reports the gastrointestinal tract has been implicated as the source of the organism. In cirrhosis it has been proposed that defective hepatic filtration favours bacteremia by pathogenic bacteria from the gastrointestinal tract. Intestinal mucosal defects existing in many patients with malignancies and cirrhosis may account for the enteropathogenic bacteria gaining access to the circulation. ³ Human *Aeromonas* isolates are most consistently sensitive (in vitro) to chloramphenicol. The majority of strains are also sensitive to tetracycline, trimethoprim and sulfamethoxazole, polymyxin, nitrofurantoin, nalidixic acid, colistin and aminoglycosides. Among the aminoglycosides more strains appear to be sensitive to gentamicin and kanamycin than to streptomycin. ³ This patient despite being covered with gentamicin succumbed to the infection.

The majority of patients with *A. hydrophila* septicemia have had impaired host defences secondary to neoplastic (usually leukemia) or hepatic disease. Other pathogenetic factors involved include toxins. ⁴ Endotoxins from isolates of *A. hydrophila* have been found to elicit localized Schwartzman reaction and to cause haemorrhagic

lesions seen in man.

Aeromonas resemble the Enterobacteriaceae and *Vibrios* and it is of prime practical importance to differentiate them. ⁵ The *Aeromonas* are oxidase-positive whereas the Enterobacteriaceae are oxidase-negative. Cultures of *Aeromonas* and *Vibrio* are differentiated in general by certain morphologic characteristics and decarboxylase reactions.

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