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Salmonella typhimurium meningitis in an adult patient with AIDS

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ABSTRACT
Salmonella meningitis is an unusual complication of Salmonella sepsis and occurs mainly in children. A rare case of Salmonella typhimurium meningitis occurring in an adult HIV positive man who presented with a history of fever and dianorrhoea is reported. On examination he was dehydrated, and had oral thrush, weakness of lower limbs and neck stiffness. A septic diagnostic screen was performed and he was commenced on empiric intravenous cefotaxime therapy for meningitis. S typhimurium was cultured from cerebrospinal fluid and blood culture specimens. It was non-lactose fermenting, oxidase negative, H2S positive and motile. Cefotaxime was continued for 14 days and the patient responded without neurological sequelae.

We report a rare case of Salmonella typhimurium meningitis in a male patient in his 40s who was immunocompromised; he presented with fever, diarrhoea and neck stiffness to a regional hospital. On examination, he was pale, dehydrated and confused, and had fever, oral thrush, weakness of lower limbs and neck stiffness. His temperature was 38.5°C; blood pressure 88/40 mm Hg; pulse rate 120 beats/min and respiratory rate 28 breaths/min. Specimens were collected for a septic screen which included a blood culture, cerebrospinal fluid, and viral load. Stool and urine specimens were not collected. A clinical diagnosis of meningitis was made, and the patient was started on intravenous cefotaxime therapy for meningitis. S typhimurium was cultured from cerebrospinal fluid and blood culture specimens. It was motile, oxidase negative, H2S positive and motile. Cefotaxime was continued for 14 days and the patient responded without neurological sequelae.

Central nervous system (CNS) infections occur in approximately 0.1–0.9% of NTS cases. Salmonella meningitis is rare in an adult patient, even in tropical areas where salmonellosis is common. The three serotypes most commonly associated with meningitis include S enteritidis, S paratyphi B and S typhimurium, with the latter commonly occurring in children <1 year of age.7

With regard to meningitis in adults, 17 cases of NTS have been reported. Seven of these have been in HIV positive persons, but none had infection due to S typhimurium.6 In the remaining 10 cases in which the HIV status was unknown, two were associated with S typhimurium.6 In these two cases the underlying problem was a traumatic fracture of first lumbar vertebrae and postoperative wound infection for removal of a cerebral meningioma. These were associated with direct transmission of the organisms. The food source of the organism

138
was not found in our patient. However, we believe this is a gastrointestinal infection with subsequent spread to the CSF. Standard infection control measures were followed while the patient was hospitalised.

We have presented an unusual case of meningitis in an immunocompromised adult who had a CD4 count of $2 \times 10^6/l$ and presented with diarrhoea. The patient, despite poor immune status, responded to appropriate antimicrobial therapy and was discharged without any neurological complication.

Competing interests: None declared.

REFERENCES