Urinary Tract Infection Due to Salmonella Typhimurium in a HIV Seropositive Adult Male: A Case Report

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Urinary Tract Infection Due to Salmonella Typhimurium in a HIV Seropositive Adult Male: A Case Report

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Introduction

Despite advances in the prophylaxis and treatment, infection due to non typhoidal Salmonella is seen. The isolation of non typhoidal salmonella from urine specimen is unusual and is commonly related to immunocompromised patients. Here we present a case of HIV infected patient with urinary tract infection.

Case Report

A 51 year old male, smoker and alcoholic for the past 20 years presented to medicine OPD with history of urgency, frequency, dysuria and pain in the hypogastric region. He was diagnosed as HIV seropositive five years back and was also treated for disseminated tuberculosis, strongyloidoisis and oral candidiasis. On examination his posterior cervical lymph nodes, axillary and inguinal lymph nodes bilateral were enlarged. Liver was also palpable. Ultrasound abdomen showed grade-1 renal parenchymal changes. Urine was sent to laboratory for investigations. Urine protein was 2+ (100mg/dl), sugar was negative, WBC 12-15 /HPF, RBC 1-2/HPF, Epithelial cells 1-2 /HPF. Casts and cysts were negative, bacteria were present. Urine on Gram’s stain showed gram negative bacilli and pus cells. Urine was plated onto culture media i.e Blood agar and MacConkey’s agar for estimation by semiquantitative technique and to follow Kass’s concept of significant bacteriuria. Growth showed ≥100000 CFU/ml on blood agar, nonlactose fermenting colonies on MacConkey’s agar. Further identification was done as described by Baird-Parker. Strains were serotyped as per the scheme of Kauffmann. Strain was sent to central research institute, Kasauli and was identified as Salmonella typhimurium. Strain was sensitive to ciprofloxacin, amoxicillin, cefotaxime, chloramphenicol and co-trimoxazole. Patient was treated with ciprofloxacin and repeat urine sample did not yield any growth.

Study conducted by Lee SC et al [1], analysed Salmonella bacteremia and found S typhimurium in 30/83 episodes and S enteritidis18/40 episodes. Most of the strains were from the immunocompromised patients (75%).

A retrospective survey conducted by the Centers for Disease Control (CDC) in 1982 identified 3,393 urine isolates of Salmonella submitted to their laboratories over a period recovered from infants younger than 1 year of age to persons 60 years of age or older. 17 serotypes of Salmonella accounted for 75% of urine isolates and the risk factors include immunocompromised conditions [2,3]

Further clarification of the role of non typhoidal Salmonella in AIDS patients with UTI seems warranted.

References

Illustrations

Illustration 1

S. Typhimurium on Blood agar and MacConkey agar
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