CASE REPORT

Spondylodiscitis due to Salmonella in an Immunocompetent Patient

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Salmonella is a gram-negative bacillus that penetrates in human from contaminated food or water. Salmonella spondylodiscitis is a rare condition occur secondary to hematogenous spread after bacteremia episode. We presented a successful treatment with Levofloxacin in a 26 years old immunocompetent male with a septic form of salmonellosis complicated with lumbar spondylodiscitis without surgery. He was treated with intravenous Levofloxacin for three weeks and was discharged from the hospital with oral Levofloxacin for more than two months. Clinical and laboratory evaluation two months after oral treatment resulted normal. **KEY WORDS:** SALMONELLA, SPONDYLODISCITIS.

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1. INTRODUCTION

Salmonella is a non-spore-forming gram-negative bacillus of the family Enterobacteriaceae. In most cases humans ingest the organism from contaminated food or water and small bowel becomes its habitat. Salmonella can be either quiescent in an asymptomatic carrier state or manifest as gastroenteritis, typhoid fever, or bacteremia (1, 2). Typhoid fever is a systemic infectious disease caused by the dissemination of this organism arising from the gastrointestinal tract and is commonly characterized by fever and abdominal pain (3). Salmonella spondylodiscitis is a rare condition that is more prevalent in patients with sickle cell disease or immunosuppression; however, it can also be found in immunocompetent patients, too. Salmonella spondylodiscitis thought to occur secondary to hematogenous spread after an episode of bacteremia.

2. CASE REPORT

A 26 year old male was admitted in Service of Infectious Diseases with a diagnosis of febrile condition with lumbar and hepato- lienal syndrome. His complaints were: temperature 39-40 degrees continua, strong lumbar pain, unable to walk and move. Symptoms were start five days ago with fever, lumbar pain and some diarrhea episodes. He was treated in a regional hospital for 3 days, but the situation wasn’t improving. He worked as emigrant in Greece from arrived two weeks ago healthy.

Objective examination showed pale face, hepato-splenomegaly and unable to move feet and lumbar region because of terrible pain. A complete blood count revealed hemoglobin of 13g/dL, white blood cell count (WBC) of 13,600 cells/mm3 (60% neutrophils and 40% lymphocytes) and platelet count of 250,000 cells/mm3, Erythrocyte Sedimentation Rate (ERS) 45mm/h. C-Reactive Protein (CRP) was 12 mg/dL. Blood sugar and other blood chemistry tests were normal. Chest radiography was normal. Chest sonography examination were normal. In two cultures of blood were seen gram negative bacteria, Salmonella Group B. Urine culture were negative. Results in first Widal test were: TO1:160, TH 1: 320. Other serological tests: Wright, Wail-Felix, HIV, ELISA Brucellosis IgM, IgG were negative. Gamma-interferon test and PPD...
patients following sickle cell crisis where intestinal infections due to sickling permits the passage of ordinary salmonella gut flora organisms into the blood stream, and then to bone (6). Our case was without any haemoglobinopathy or immunosuppression. According to (7) Salmonella spondylodiscitis accounts for less than 0.5% of all bone infections, it causes significant difficulties in management and can be associated with increased morbidity and mortality. The major clinical manifestations and laboratory findings include fever, back pain, leukocytosis and elevated ESR and CRP as in our case.

Cases are thought to occur secondary to haemogenous spread after an episode of bacteremia (1, 2, 4, 7) as in our patient. Blood culture was positive in 48% of cases (4).

According to (5) no patients in the literature can recognize a history of diarrhea prior to their present illness, probably due to a long incubation period of the disease and the ability of Salmonella Typhi to penetrate the intestinal wall without causing the diarrheal symptoms, but in (5) diarrhea was present only in 16% of cases, as in our case with a septic form of the disease. Most patients in the literature had symptoms of illness of less than 3 months, with the range from two days to three months. The mortality of spondylitis caused by Salmonella spp. or pyogenic bacteria in other studies varied between 5% and 40% (4). In our case the patient had high temperature tree days before started pain in lumbar region. MRI ten days after beginning complains, showed irregular margin associated with an oedema of the L5 vertebral body and a slight epidural attenuation.

3. DISCUSSION

Extraintestinal infections are the rare complications of Salmonella bacteremia, accounting for 5-10% of all patient (4, 5). Salmonella osteomyelitis has traditionally been associated with one forth of which involves the spinal column (9). The most common infection sites of typhoid spondylitis were the lumbar region (5) and our case was one of them. Treatment applied with i/v Levofloxacin for three weeks and more than two months with oral Levofloxacin resulted successful. Salmonella is sensible to Ciprofloxolin, Ceftiraxon, Levofloxacin (2, 8, 10, 11, 12). Summary of ten patients with Typhoid spondylitis from English literature showed in Table 1 (3).

4. CONCLUSION

We presented a successful treatment with Levofloxacin in a 26 years old immunocompetent male with a septic form of salmonellosis complicated with lumbar spondylodiscitis without surgery intervention.

REFERENCES


Figure 1. MRI Sagital and Axial View L5-S1 intervertebral disc presented small hyper signals and irregular margins, associated with an oedema of the L5 vertebral body and a slight epidural attenuation.