

Salmonella Typhi causing parietal wall abscess

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ABSTRACT

We report a case of *Salmonella enterica serotype Typhi (S.Typhi)* isolated from a case of post-traumatic anterior parietal wall abscess. Enteric fever is endemic in most of the developing regions, especially in the Indian sub-continent. S.Typhi bacteremia is known to be associated with extra-intestinal disease. It is capable of forming abscesses in various organs, like spleen, sub-cutaneous tissue & skin. The pathogenesis of abscess formation is not well established. Salmonella species can occasionally cause soft tissue infections at the sites of local trauma.

Key Words: Parietal wall abscess, Post-traumatic, *S. Typhi*

CASE REPORT

A 42 year old male was admitted in the surgical ward, with complaints of abdominal pain of 1- week duration. The pain was intermittent at first, and later localized to the right hypochondrium, radiating to the back, and increased during straining. He also noticed a swelling over the right hypochondrial region. He also gives a history of feeling feverish for the past 2 weeks.

He gave history of a fall 2-3 months back. He is a chronic smoker and alcoholic for the past 20 years. He is a known case of chronic calculus pancreatitis and recently (1 ½ years) diagnosed to have uncontrolled diabetes, but on irregular treatment with Insulin.

Findings on clinical examination

Temperature-99° F

Intercostal oedema with local rise of temperature and tenderness over right hypochondrium was observed.

Ultrasonogram abdomen revealed a collection in the posterior aspect of right hypochondrial abdominal wall, beneath muscle and rib, anterior to liver and parietal peritoneum.

The provisional diagnosis was of parietal wall abscess, which was drained under local anaesthesia. The pus was sent for culture and sensitivity.

Gram stain of the pus did not show any bacteria or pus cells.

Culture

Non lactose fermenting colonies were grown on MacConkey Agar, biochemically resembling S.Typhi, and serotyped using polyvalent & monovalent antisera for confirmation. The isolate was sensitive to Ampicillin, Chloramphenicol, Cotrimoxazole, Ciprofloxacin, & Ceftriaxone.

Other lab results

Total count-15500 cells/cumm, Differential-P₇₂, L₋₂₅, E₋₃, E.S.R- 55 mm/ hour.

R.B.S - 350 mg/dl.

Blood culture was sterile

Widal showed a high titre for antibodies to S.Typhi O & H antigens (>480), but antibodies to S.Paratyphi A& B H antigens were negative (<30).

Patient was treated with Ceftriaxone 1.5 gm intravenously (I/V) twice daily for 10 days. His diabetes was also controlled by appropriate treatment with Insulin. He improved symptomatically. Since a drain was kept for continuous drainage, a repeat sample could be taken for culture, which did not yield any growth. The drain was removed and he was discharged, with proper guidance for control of Diabetes. Review and follow-up 1 week later confirmed the recovery.

DISCUSSION

Bacteraemia is a constant feature of enteric fever, and a rare complication of other Salmonella infections.

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Occasionally if left untreated, or inadequately treated, the widespread dissemination of the bacilli throughout the body results in the establishment of one or more localized foci of persisting infection, especially where pre-existing abnormality makes a tissue or organ vulnerable.^[1]

This patient gives a history of fall, which may have traumatised his abdominal wall in the region of right hypochondrium. He also had irregular fever, which could have been undiagnosed Enteric fever. During bacteremia, the bacilli must have established in the damaged parietal wall and resulted in an abscess. Moreover, the fact that he is a chronic smoker, alcoholic, and diabetic contributed to his general ill health or immuno-compromised state, which makes the patient an apt candidate for focal suppuration.

Usually other *Salmonella*, especially *Paratyphi C* more often leads to frank septicaemia with suppurative complications.^[2] There are reports though rare, of *S. Typhi* causing local abscess, like bilateral breast abscess in a non-lactating female^[3], multiple brain abscess^[4], injection abscess^[5], anterior parietal wall abscess in a newly diagnosed diabetic.^[6]

CONCLUSION

S. Typhi bacteraemia is occasionally associated with extra-intestinal disease, capable of forming abscesses in various tissues and organs. Though Enteric fever is endemic in

developing countries, *S. Typhi* infections can have varied presentations. Newer diseases are emerging & common diseases are presenting in newer ways. Hence one should always be vigilant in recognizing uncommon presentations of common diseases.

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