

Enteric Fever Presenting With Right Iliac Fossa Pain Misdiagnosed as Acute Appendicitis: A Diagnostic Pitfall

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Introduction

Background

Enteric fever, known as typhoid fever, is caused by *Salmonella enterica* serovar Typhi. South Asia has the highest incidence of typhoid cases, with an annual estimate of 11-21 million patients and about 128,000-161,000 deaths. [1,2] Pakistan has the highest estimated prevalence (493.5 per 100,000 persons/ year) in South Asia. [3,4] Enteric fever is endemic in economically developing countries due to limited access to safe drinking water and poor sanitation and hygiene.

Case Presentation

A 29-year-old primigravida (16 weeks) presented with RIF pain for 2 weeks and fever (101oF) for 1 week. Abdominal examination revealed diffuse abdominal pain towards RIF (optimistic Murphy's sign). TLC was 14.7 (78 % neutrophils). Ultrasound report suggested mildly inflamed appendix and subserosal fibroids. The patient underwent appendectomy and myomectomy, and specimens were sent for Histopathology. The patient was shifted to the ward.

A few hours later, the patient complained of severe abdominal pain, marked abdominal distension with profuse sweating and hypotension. She was shifted to the operation theatre with the suspicion of internal bleed and was reopened. About 1500 ml of blood was drained, and her uterine artery was embolized. Investigations revealed a picture of

Enteric fever presents as prolonged high-grade fever and vague gastrointestinal symptoms. Pain in RIF due to mesenteric lymphadenitis may imitate acute appendicitis resulting in unnecessary surgery. Here we report a case of a 29-year-old primigravida who presented with fever and RIF pain and underwent appendectomy. Her blood culture yielded growth of *Salmonella Typhi*, while Histopathology of the appendix revealed only lymphoid hyperplasia.

fulminant DIC with suppression of all cell lines, D-dimers 800-1600 ng/ml, failure of blood to clot, and deranged RFTs and LFTs. Her condition kept deteriorating, and she was opened for a third time to evacuate the fetus. Multiple surgeries and massive blood loss landed the patient in ICU, where endotracheal intubation was done. About 48 blood components were transfused. On the 2nd post-op day, she developed a high-grade fever. Her blood cultures were sent, which grew *Salmonella Typhi* sensitive to Ampicillin, Ceftriaxone, Meropenem, and Azithromycin. The histopathology report showed only lymphoid hyperplasia. Due to an incorrect diagnosis and aggressive surgical decisions, the patient succumbed to death.

Discussion and Conclusion

Enteric fever may present with non-characteristic findings. Numerous cases present with vague abdominal symptoms and undergo unnecessary surgery, as in our case. In the presence of fever and abdominal symptoms, suspicion of enteric fever should always be considered in endemic regions such as Pakistan. Testing for enteric fever should be included in baseline investigations, and a reliable

rapid diagnostic test for undiagnosed fever should be developed. In endemic countries, efforts should be made the provision clean drinking water, hygiene and sanitation, and safe sewage disposal. Typhoid vaccination should be encouraged to decrease the burden of disease.

List of abbreviations

RIF – right iliac fossa

TLC – total leukocyte count

DIC – disseminated intravascular coagulation

RFT – renal function test

LFT – liver function test

ICU – intensive care unit

Keywords: Enteric fever, Salmonella Typhi, acute appendicitis

Declarations

Ethics approval: Approval to conduct this study was acquired from Ethical Review Committee, Fauji Foundation Hospital, Rawalpindi.

References

1. Buckle GC, Walker CL, Black RE (2012) Typhoid fever and paratyphoid fever: Systematic review to estimate global morbidity and mortality for 2010. *Journal of global health*. 2(1): 010401.
2. Fatima M, Kumar S, Hussain M, Memon NM, Vighio A, et al. (2021) Morbidity and mortality associated with typhoid fever among hospitalized patients in Hyderabad district, Pakistan, 2017-2018: retrospective record review. *JMIR Public Health and Surveillance*. 7(5): e27268.
3. Das JK, Hasan R, Zafar A, Ahmed I, Ikram A, et al. (2018) Trends, associations, and antimicrobial resistance of Salmonella typhi and paratyphi in Pakistan. *The American journal of tropical medicine and hygiene*. 99(3_Suppl): 48-54.
4. Keddy KH (2018) 21st-century typhoid fever—progression of knowledge but regression of control?. *The Lancet Infectious Diseases*. 18(12): 1296-1298.

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