

## Unusual Presentation of Typhoid Fever

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### ABSTRACT

Typhoid fever is a common public health problem. Most of the cases will not have typical presentations. Jaundice, abdominal lymphadenopathy, acalculous cholecystitis, splenic and liver abscess, myocarditis and pneumonitis are the unusual presentations. Here we brief a case of a 24 year old male who came with complaints of fever, jaundice and thrombocytopenia.

**Key words:** Typhoid, Jaundice, Thrombocytopenia, Fever

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### INTRODUCTION

The organism causing Typhoid fever is *Salmonella typhi* and *paratyphi*. The common method of transmission is by ingestion of contaminated food and water. It is caused by bacterial invasion of Peyer's patches in the ileum which leads to bacteremia and multiplication of bacteria in phagocytic cells of liver, spleen, and lymph nodes. Many organs can be involved which results in presentations from fever to involvement of multiple organs, leading to multi-organ failure. The typical presentation of typhoid fever is, in first week it presents with fever, toxemia and constipation, which leads to abdominal discomfort, rose spots, splenomegaly, diarrhoea, vomiting in the second week, further leading to complications like intestinal haemorrhage and intestinal perforation in the third week. Atypical presentations are fever with jaundice, abdominal lymphadenopathy, Pancreatitis, Acute acalculous cholecystitis, splenic abscess, and Liver abscess, Pneumonitis, Meningitis, Pancarditis, and Osteomyelitis. Complications usually occur in 3rd or 4th week of illness in inadequately treated patients. Commonest complications are intestinal haemorrhage and perforation which requires prompt medical or surgical intervention. Liver involvement is uncommon and is either by hematogenous seeding or contagious spread from reticuloendothelial system. Clinically manifests as hepatomegaly with jaundice with abnormal

liver function tests. Typhoid fever myocarditis is underdiagnosed; it results in inflammation of intramural vessels with lymphocytic-macrophage infiltration of stroma which leads granuloma formation and necrosis of cardiac myocytes. They present with chest pain, shortness of breath, reduced functional capacity and new onset arrhythmias. The presentation with congestive heart failure and pulmonary oedema in young patients especially when with typhoid infection, should arouse suspicion of myocarditis [1,2].

### CASE REPORT

A 24 year old boy came with complaint of fever and jaundice for the last 3 days. He was febrile (101.4), icteric with hepatosplenomegaly. Laboratory investigations revealed Hb 12gm%, TLC 4000/cumm (N71, L24, M2, E1), platelets 50,000/cumm, ESR 14mm, total bilirubin 7.8mg% (direct 6.6mg%), ALT 255, AST 200, ALP 245, total proteins 6.0gm/dl, serum albumin 3.5gm/dl. Peripheral smear showed normocytic normochromic picture with thrombocytopenia. RFT with serum electrolytes was normal. Workup for Dengue, malaria, viral hepatitis and leptospira was negative. USG abdomen revealed hepatosplenomegaly without any free fluid. Widal test was positive (*Salmonella typhi* H positive upto 1:320 dilutions). After 2 days of incubation blood culture grew *Salmonella typhi* organisms. On day 2 of admission petechial spots was present all over the body and platelet count fell to 25,000/cumm. He was started with IV ceftriaxone, ofloxacin and IV fluids. After three days patient was afebrile, jaundice improved. On 7th day total bilirubin was to 2.3mg/dl and Platelets increased to 98,000/cumm.

### DISCUSSION

Typhoid fever with typical presentation is changing

over years. Atypical presentations delays diagnosis and treatment. This patient had atypical presentation of fever, jaundice and thrombocytopenia. We worked for malaria, dengue, leptospirosis and viral hepatitis and it was found to be negative. Typhoid can be presented with abnormal liver function tests, but severe jaundice and thrombocytopenia is rare. Typhoid hepatitis has higher relapse rate. Incidence of intestinal haemorrhage, intestinal perforation and mortality is higher in typhoid patients with jaundice. Prevalence of atypical presentation is higher in Multi Drug Resistant Typhoid Fever [3,4].

### CONCLUSION

In clinical setting presentations of typhoid fever varies from case to case. Fever with jaundice and thrombocytopenia is seen in malaria, dengue and

leptospirosis. However, this case shows that differential diagnosis of typhoid fever should be looked in patient with fever, jaundice, especially in tropical regions.

### REFERENCE

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**Table 1: Statistics analysis for removal torque test (Ncm) in different groups at 4&8 week measured periods.**

Period	Group	No. implant	Mean	Std. Dev	Std. Error	95%confidence Interval for mean		Min	Max
						Lower bound	Upper bound		
4 week	Control	5	14.22	0.77	0.34	12.54	16.23	12.11	16.44
	Experimental	5	18.56	0.88	0.42	16.54	19.88	16.32	20.5
8 week	Control	5	19.54	0.91	0.79	16.92	21.56	17.22	22.22
	Experimental	5	26.34	0.6	0.31	24.32	28.44	23.79	28.98

**Table 2: Statistics analysis for BIC test in different groups at 4 & 8 week measured period.**

Period	Group	No. implant	Mean	Std. Dev	Std. Error	95%confidence Interval for mean		Min	Max
						Lower bound	Upper bound		
4 week	Control	5	11.22	0.67	0.32	9.54	12.23	9.11	13.44
	Experimental	5	22.56	0.48	0.32	20.34	23.88	20.1 2	23.59
8 week	Control	5	21.54	0.71	0.42	19.92	23.56	19.22	24.22
	Experimental	5	25.34	0.7	0.3	24.32	26.44	23.79	27.36

**Table 3: LSD after ANOVA test for removal torque and BIC between groups at 4 & 8 week measured period.**

Parameter	Period	Group	Mean Diff.	Sig.	C.S.(*)
Removal torque	4 week	Control/experimental	-5.1	0	HS
	8 week		-5.04	0	HS
BIC	4 week	Control/Experimental	-6.22	0	HS
	8 weeks		-1.6	0.011	S