

*Case Report***Gall Bladder Gangrene and Perforation Complicating Typhoid Fever**Budensab AH<sup>1\*</sup>, Venkatesh M Annigeri<sup>2</sup><sup>1</sup>Department of Pediatrics, SDM College of Medical Sciences and Hospital, Dharwad, India<sup>2</sup>Department of Pediatric Surgery, SDM College of Medical Sciences and Hospital, Dharwad, India

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*Received: 09/11/2012**Revised: 19/12/2012**Accepted: 26/12/2012***ABSTRACT**

Gall bladder gangrene with perforation is an uncommon but dreaded complication. Surgical complications of typhoid fever more commonly involve the gut and rarely gall bladder. The morbidity and mortality rates are higher especially if they are not detected and treated in time. We report a case of gall bladder gangrene with perforation which is a rare complication of typhoid fever.

**Key words:** Typhoid fever, gall bladder, perforation

**INTRODUCTION**

Gall bladder gangrene with perforation is an occasional complication of typhoid fever. Spontaneous perforation in calculus cholecystitis is infrequent and even rarer in the absence of gallstones, but occasionally occurs following typhoid fever.

[1] If such conditions are not treated in time, mortality rates are very high. We report a case of gall bladder gangrene with perforation complicating typhoid fever in a child.

**CASE REPORT**

9 year old boy presented with 10 day history of fever and 1 day history of pain abdomen. Pain was diffuse, continuous and severe interfering with daily activity. Child did not pass stool for 3 days but had no history of vomiting or jaundice or burning micturation. He was shown to a local doctor

but symptoms did not subside and referred to our hospital for further management.

On examination he was conscious well oriented, febrile, tongue was coated mild pallor. He had tachycardia and normal BP. There was mild abdominal distention; tenderness and rigidity were present all over the abdomen. No mass palpable per abdomen, bowel sounds absent and other systems normal.

CBC revealed Hb 12.7gms% TC 10660/cumm platelets 46000/cumm differential count neutrophils 86% lymphocytes 12% monocytes 2% eosinophils 0% basophils 0%.

Peripheral smear revealed normocytic normochromic erythrocytes, leukocytes normal with increased neutrophils. Platelets reduced in number, no immature cells or parasites seen.

Impression: Neutrophilia with thrombocytopenia

An erect abdomen x ray revealed - multiple fluid levels on central part of abdomen, no free air under diaphragm suggestive of small bowel obstruction.

USG abdomen revealed mildly enlarged liver with normal echo texture, gall bladder adequately distended with normal walls, no calculi, small amount of free fluid present within peritoneum with impression of mild hepatomegaly and mild ascites.

Widal test was positive with high titre S typhi O titre 640 S typhi H titre 640 S paratyphi A (H) negative S paratyphi B (H) negative.

Child was diagnosed as typhoid fever with paralytic ileus in the view of high endemicity of typhoid fever and x ray

abdomen erect not showing any free gas under the diaphragm.

Child was treated conservatively but child did not improve, distention and pain abdomen persisted with bilious aspirate, it was decided to undertake a exploratory laparotomy on 3<sup>rd</sup> day of admission and revealed small perforation at fundus (Figure 1) and the gall bladder was 50% gangrenous (Figure 2). Thick pus flakes present in the peritoneal cavity. The terminal ileum, cecum and appendix were edematous and inflamed. Cholecystectomy was done and peritoneal cavity was washed with plenty of normal saline and abdomen was closed in layers. Pain and distention reduced post operatively and child made a smooth recovery.

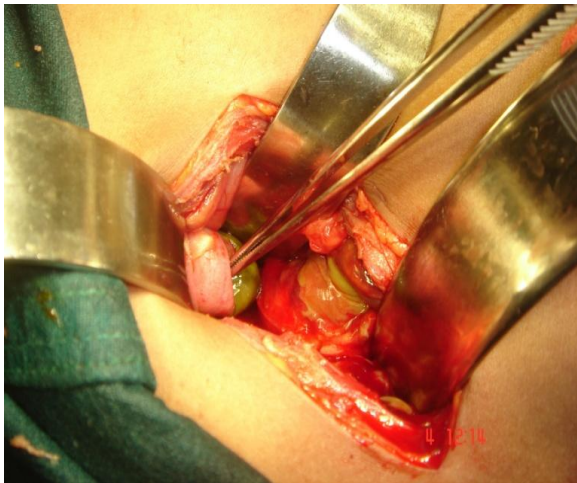


Figure 1 - Gall bladder showing perforation at fundus

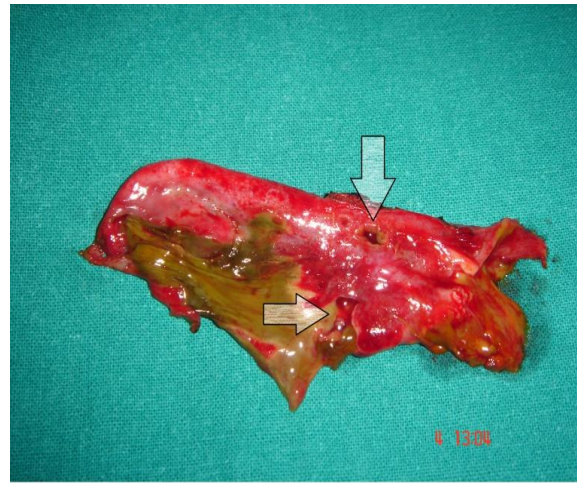


Figure 2-Gall bladder showing perforation and gangrene

## DISCUSSION

Typhoid gall bladder perforation (GBP) is a rare surgical sequel of typhoid infection and is hardly suspected preoperatively even in places where typhoid ileal perforation is rampant [2,3,4] due to common feature of generalized peritonitis. The occurrence of acalculous typhoid GBP has been ascribed to the concomitant presence of intense inflammation, immunosuppression, and highly virulent organisms. [5] Routine plain radiographs of abdomen and chest for air under diaphragm

might have delayed intervention without contributing substantively to diagnosis and treatment. Sood<sup>[6]</sup> suggested high reliability of ultrasound in diagnosing GBP, but USG gallbladder showed distention with normal walls and no calculi. Cholecystostomy was not possible in this child because he had had gangrenous gallbladder involving 50% with perforation at fundus of the gallbladder. It was observed that the inflamed tissues at the gallbladder neck could be easily separated with blunt dissection and hence cholecystectomy was done.

Many series have reported high mortality among patients with acute GB.<sup>[7]</sup> The diagnosis of acute cholecystitis in children with typhoid fever requires high index of suspicion to prevent the potentially life threatening complications of perforation and gangrene. Though management is very challenging, the outcome was good with early intervention and cholecystectomy.

## REFERENCES

1. Shukla VK, Khandelwal C, Kumar M, Vaidya MP. Enteric perforation of the gall bladder. *Postgrad Med J* 1983;59:125-6.
2. Uba AF, Chirdan BL, Ituen AM, et al. Typhoid Intestinal perforation in Children: a continuing scourge in developing country. *Pediatr Surg Int* 2007;23:33-39.
3. Ugwu BT, Yiltok SJ, Kidmas AT, et al. Typhoid intestinal perforation in north central Nigeria. *West Afr J Med*. 2005;24:1-6.
4. Saxena V, Basu S, Sharma CLN. Perforation of the gall bladder following typhoid fever-induced ileal perforation. *Hong Kong Med J*. 2007;13:475-477.
5. Chirdan LB, Iya D, Ramyil VM, et al. Acalculous cholecystitis in Nigerian children. *Pediatr Surg Int* 2003;19:65-67.
6. Sood BP, Kalra N, Gupta S, et al. Role of sonography in the diagnosis of gallbladder perforation. *J Clin Ultrasound*. 2002;30:270- 274.
7. Essenhigh DM. Perforation of the gallbladder *Br J Surg*. 1968;55:175-178.

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