

Acute Acalculous Cholecystitis in Typhoid Fever

Acute acalculous cholecystitis is an acute inflammation of the gall bladder without stones. It was once considered a rare complication of typhoid fever(1), and was rarely diagnosed pre-operatively before the advent of ultrasound(2). Recent studies using ultrasound have, however, shown that the complication is not so rare(3). We report the occurrence of this complication in 50 patients of typhoid fever examined by ultrasound.

Of the 50 patients, 30 were culture positive and remaining had characteristic clinical features and a positive Widal test ('O' titre >1:160). All the patients were subjected to an abdominal ultrasound examination in fasting state using Seiman's 'Sonoline' ultrasound, unit with 3.5 mega hertz probe. The diagnosis of acalculous cholecystitis was based on the criteria previously reported(3).

Acalculous cholecystitis was diagnosed in 4 (8%) patients. Three out of these 4 children presented during the first week of illness. The clinical profile and investigations in these cases is shown in *Table I*.

Before the advent of ultrasound, typhoid fever was considered to be complicated by cholecystitis in 2.8% patients; 1.7% being acalculous(1). Recent reports on typhoid fever have not shown symptomatic cases of acute cholecystitis(4). A recent study from Bangalore, in which ultrasound criteria were used for the diagnosis, found a

very high prevalence (24%) of this complication in 143 children with multi-drug resistant typhoid fever hospitalized during the year 1991(3). Four (8%) patients had acute acalculous cholecystitis in our study. The clinical features of these patients were similar to those with acalculous cholecystitis. A palpable gall bladder is also a feature, but was not seen in our patients.

The Ultrasound criteria for acute acalculous cholecystitis include a thickened gall bladder wall (more than 0.3 cm), sonographic Murphy's sign, a round shape, pericholic collection and the absence of gall stones(3).

The management of acalculous cholecystitis is mainly conservative[^]) and includes intravenous fluids, appropriate antibiotics and close clinical monitoring. All the 4 cases in the present study were treated with ciprofloxacin. Ultrasound scanning, repeated at weekly intervals, showed normal appearance after 3 weeks to 3 months. Infrequently acalculous cholecystitis may be associated with suppuration, ischemia or septic complications and require cholecystectomy.

Our findings suggest that ultrasound examination contributes to frequent detection of acalculous cholecystitis in typhoid fever, a complication, considered to be rare previously.

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TABLE I - Clinical Profile and Investigations in Acalculous Cholecystitis

Symptoms	No. of cases	Signs	No. of cases
Fever	4	Hepatomegaly	2
Vomiting	3	Splenomegaly	4
Abdominal pain	2	Palpable gall bladder	0
Abdominal distension	0	Pallor	2
Bowel disturbances	2	Ascites	1
Altered sensorium	1	Icterus	2

Investigations

Widal test-'O' titer more than 1:160	4
Positive blood culture	4
SCOT more than 20 IU /L	2
SCPT more than 15 IU /L	1
Alkaline phosphatase more than 11 KA units/L	3
Abdominal ultrasound	
Sonographic Murphy's sign	4
Gall bladder wall thickness 0.3-1 cm	4
Biliary sludge	0
Ascites	1
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