

Enteric Fever Clinical Presentation at Different Age Groups of Children in Children Complex Multan

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ABSTRACT

Objective: To know enteric fever clinical manifestations due to age difference in children <5 years and above or equal 5 years.

Place and Duration: Children Complex Multan from Dec 2015_2016

METHODS: This study was carried out to determine the clinical status of patients with enteric fever. Total patients were 30 ranging between 9 months to 12 years of age were exposed to Widal positive and / or cultured salmonella were selected.

Findings: The mean age of presentation was 5 ± 3 . common clinical features were vomiting (38.8%), fever (100%), cough (28.07%), abdominal pain (27.87%), hepatomegaly (2: 80.55% 47.22%), diarrhea (19.44%), pink spots (8.33%) and relative bradycardia (13.88%). No patient had constipation. Diarrhea was more common in the <5-year-old group, whereas only relative bradycardia was observed in 5-year-old or above age group. First-line antibiotics used, cefotaxime (2.7%) and cefuroxacin, 31 (86,11%) in four (11.11%) were used. First-line antibiotics failure occurred in 30.5% of patients. 6 (16.66%) patients had serositis, synovitis, 1 (16.67%) had osteomyelitis, shock and spleen abscess including complications. 34 (94.44%) of the children improved, 1 died and 1 was followed. Healing was faster compared to 5 years of age <5 years. First line resistance to third generation cephalosporin antibiotics occurs in 30% of our patients.

Conclusion: Diarrhea was more frequent in <5 year old group, only in 5 year age group patients

where relative bradycardia was observed. In any case Constipation was not a feature. In both age groups Features clinically such as vomiting, fever, cough, abdominal pain, hepatomegaly, diarrhea, pink spots and splenomegaly were present.

Key words: Relative bradycardia, enteric fever, abdominal pain.

INTRODUCTION

Enteric fever remains endemic in the poorest countries of the world, although it has disappeared from countries who are developed due to protected water resources and Good health system . Five of the most concerned about the typhoid disease spread are finger, food, fly, fomit and feces. Corticosteroids predominantly causes enteric fever and the next main cause is salmonella for typhoid. Fecal, get it through the oral route. Infection diseases and healthy carriers are the main sources of infection. Common features clinically present are vomiting, fever, diarrhea, abdominal pain, hepatomegaly, cough, thrombocytopenia and anemia. A same clinical picture was also seen in malt and dengue. In children more frequently enteric fever is reported in older than 5 years and more than one third of patients have complications. However, clinical characteristics may differ in children under 5 years of age and are therefore important. It is known whether there is any difference in clinical chart of typhoid fever based on age difference and typhoid fever clinical charts. For this reason, we reviewed the clinical status of enteric children

having fever who admitted in pediatric department of Children Hospital, Multan.

METHOD

This study was conducted from December 2015 to December 2016 for the period of one year in Pediatric Department of Children Hospital, Multan. All patients were between nine months and twelve years and fever with cultured salmonella and Widal positive. Thirty total patients were selected for the study. From the parents an informed consent was obtained. All patients had a detailed history with clinical

examination. Before being included in the study, all of the patients were investigated such as Chest X Ray, whole blood analysis, LFTS and RFTS, urine and stool tests, blood culture and Widal test. Other tests were performed as dengue IgM and slides for MP to discard fever. Common laboratory and clinical characteristics were observed. Other causes of fever in patients, such as dengue fever and malaria were not included in the study. Into 2 groups patients were divided with age less than 5 years and equal to an greater than 5 years 2 years and clinical signs were observed with age differences.

RESULTS

The average age of the cases was five years (5.0 ± 4.0) years and 18 (48.02%) patients were less than 5 years and 20 (53.08%) were greater than or equal to 5 years. M:F ratio is 2: 1 shown in (Table-1).

TABLE-1: Total No of Males and Females in <5 Years and >5 Years (no=36).

Sex	<5 years		Sex	>5 years	
	Number	%age		Number	%age
Males	12	70.59	Male	12	63.16
Females	05	29.41	Female	07	36.84

The different typhoid clinical features are given in Table 2.

TABLE 2: Common Clinical Features of Typhoid in Children (n=36)

Clinical Feature	No. of Patients (%)
Fever	36 (100.0)
Hepatomegaly	29 (80.55)
Splenomegaly	17 (47.22)
Vomiting	14 (38.88)
Abdominal pain	10 (27.77)
Cough	10 (27.77)
Diarrhea	7 (19.44)
Relative bradycardia	5 (13.88)
Rose spots	3 (8.33)

A comparison of the clinical characteristics of age groups with age <5 years and ≥ 5 years is shown in Table 3.

TABLE 3: Age Related Clinical Features

	< 5 years (%)	> 5 years (%)
Male	12 (70.59%)	12 (63.16%)
Female	5 (29.41%)	7 (36.84%)
Vomiting	8 (57.14%)	6 (42.86%)
Abdominal pain	4 (40%)	6 (60%)
Diarrhea	5 (71.43%)	2 (28.57%)
Cough	4 (40%)	6 (60%)
Hepatomegaly	13 (48.15%)	14 (51.85%)
Splenomegaly	8 (50%)	8 (50%)
Rose spots	1 (33.33%)	2 (66.67%)
Relative bradycardia	0	5 (100%)
Duration of fever (days)	14.8 ± 13.8	9.1 ± 4.6
Duration of 1 st line antibiotics	15.6 ± 4.9	14.9 ± 11
Duration of 2 nd line antibiotics	7.7 ± 2.1	11.8 ± 3.2
Recovery (days)	6.1 ± 2.1	9.4 ± 4.5

Children under 5 years of age recovered faster than 5 years (mean 6.1 ± 2.1 days versus 9.4 ± 4.5). Diarrhea was observed mainly in the group of <5 years, with relative bradycardia observed mainly in the ≥5 age group. Widal test was positive in 29 patients (83.4%), elevated in 29 (80.6%), elevated in 24 (66.7%) and elevated in 5 of the AH titers (83.4%). 13.8% and 1 (2.8%) had high BH levels. Isolated *S. typhi* infection was observed in 31 patients (86.11%) and infection with *S. paratyphi* isolated in 5 (13.88%) patients. Blood cultures 8 (22.22%) were positive in the patients. 4 (11.11%) patients had positive blood and blood cultures. Cefrofloxacin and cefotaxime (2.77%) were used in 31 (86.11%) and 4 (11.11%) of the total antibiotic line used. In 5 (30.5%) patients, amikacin was required, in 3 (8.33%) ofloxacin and in 3 (11.5%) ciprofloxacin required second-line antibiotics. Methesat resistance was observed in 1 of 8 patients (12.5%) with positive blood culture. Complications were seen in 6 patients (16.66%); 2 of them (33.32%) had serositis and 1 had osteomyelitis, synovitis, spleen apex and shock. 1 patient died and 1 disappeared for follow-up and all were fully healed.

DISCUSSION

On the age-related clinical picture in children, limited data available. In most studies, children with enteric fevers were over 5 years of age at presentation, and children under 5 years were between 22.5% and 24.8%. In our study, children under 5 years of age accounted for 47.2% of the total number of patients with enteric fever due to poor hygienic status and nutrition, less than 5 years of age. In our study, Mubeena et al. Men were more frequently affected than women participating in the survey conducted by them. Abdel Wahab et al. They found the same distribution between males and females. Fever, vomiting, abdominal pain, hepatomegaly and splenomegaly were the most common enteric fever clinical features in children of our study, Malik et al. And others. Relative bradycardia, Kumar et al. Similar to what is reported by our study, it was not a major feature of enteric fever. However, it is more common in children older than 5 years. Only one case resistant to multiple drugs was observed. 18.18% of patients with lower complaints were reported, while others reported more complications than 30% of patients had complications. enteric fever have been

reported to be complications of bone marrow suppression, paralytic illusions, gastrointestinal complications, pneumonia, cholecystitis, endocarditis, osteomyelitis, central nervous system and splenic abscess. Similarly, in our study, common complications were pleural effusion, spleen apex, and osteomyelitis. Other complications were the synovitis and shocks observed in our patients. As reported in other studies, mortality was minimal in our study.

CONCLUSION

Diarrhea was more frequent in group <5 years, whereas relative bradycardia was observed only in 5 years of age. Constipation was not a feature in any case. Both age groups had clinical features such as vomiting, fever, cough, abdominal pain, hepatomegaly, diarrhea, pink spots and splenomegaly.

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