

# A study of profile of the patients with typhoid fever in pediatric patients at tertiary care center

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## Abstract

**Background:** This word typhoid is derived from Greek word 'TYPHOS' meaning smokes or stupor. Typhoid is a multi systemic bacterial illness caused by Salmonella species, subspecies enterica and serovar typhi. **Aims and Objectives:** To study Profile of the patients with Typhoid Fever in pediatric patients at Tertiary Care center. **Methodology:** This was a cross-sectional study carried out in the department of pediatrics at tertiary health care centre during the one year period i.e. March 2017 to March 2018, in the one year period all the patients with fever were screened for typhoid fever all of them undergone routine tests with widal test. Those patients showing widal test positive and supported clinical features were considered to classify the patients as typhoid. So during the one year period 181 patients included into study. The details of the patients like age, sex, clinical features were noted entered to excel sheets and analyzed by excel software for windows 10. **Result:** In our study we have seen that the majority of the of the patients were in the age group of 9-12 were 29.83%, followed by 6-9 Were 24.86%; 3-6 were 20.99%, 1-3 were 13.81%, <1 were 10.50%. The majority of the were males i.e. 58.01% followed by 41.99% were females. The most common clinical features were Fever -100%, followed by Vomiting in 85%, Diarrhea in 78%, Weakness in 65%, Coated tongue in 59%, Hepatomegaly in 48%; Splenomegaly in 41%; Rash on the skin in 30%. **Conclusion:** The majority of the of the patients were in the age group of 9-12 Yrs. of age, majority of the patients were male and most common clinical features were Fever, Vomiting, Diarrhea, Weakness, Coated tongue, Hepatomegaly, Splenomegaly.

**Key Word:** Typhoid Fever, Widal test, Typhoid in children.

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## INTRODUCTION

This word typhoid is derived from Greek word 'TYPHOS' meaning smokes or stupor. <sup>1</sup> Typhoid is a multi systemic bacterial illness caused by Salmonella species, subspecies enterica and serovar typhi. A milder form of the disease is caused by serovars paratyphi A, B and C. About 26.9 million typhoid cases and more than 2

lakh deaths occur each year, with majority of the cases reported in Asia.<sup>2</sup> The incidence of typhoid varies substantially within Asia, with a very high incidence noted in India and Pakistan. <sup>3</sup> Low standards of living and poor hygiene practices have contributed to the disease burden and made India endemic to typhoid fever. For developing countries like India, it is a big public health problem as the sanitation and public health standards are poor. Back in the 19th century, Typhoid fever was an important cause of hospital admission and death in the overcrowded and unsanitary urban conditions of the Europe and United states.<sup>4</sup> The introduction of clean water and good sewage systems contributed to a dramatic decrease in the incidence of typhoid. Today most of the disease burden is seen in developing countries, where sanitary conditions are poor. So, we have seen the profile of the patients with Typhoid Fever in pediatric patients at Tertiary Care center

## METHODOLOGY

This was a cross-sectional study carried out in the department of pediatrics at tertiary health care centre during the one year period i.e. March 2017 to March 2018, in the one year period all the patients with fever were screened for typhoid fever all of them undergone routine tests with widal test. Those patients showing widal test positive and supported clinical features were considered to classify the patients as typhoid. So during the one year period 181 patients included into study. The details of the patients like age, sex, clinical features were noted entered to excel sheets and analyzed by excel software for windows 10.

## RESULT

**Table 1:** Distribution of the patients as per the age

Age (Yrs.)	No.	Percentage (%)
<1	19	10.50
1-3	25	13.81
3-6	38	20.99
6-9	45	24.86
9-12	54	29.83
<b>Total</b>	<b>181</b>	<b>100.00</b>

The majority of the of the patients were in the age group of 9-12 were 29.83%, followed by 6-9 Were 24.86%; 3-6 were 20.99%, 1-3 were 13.81%, <1 were 10.50%.

**Table 2:** Distribution of the patients as per the sex

Sex	No.	Percentage (%)
Male	105	58.01
Female	76	41.99
<b>Total</b>	<b>181</b>	<b>100.00</b>

The majority of the were males i.e. 58.01% followed by 41.99% were females.

**Table 3:** Distribution of the patients as per the Clinical features

Clinical features	No.	Percentage(%)
Fever	181	100%
Vomiting	154	85%
Diarrhea	141	78%
Weakness	118	65%
Coated tongue	107	59%
Hepatomegaly	87	48%
Splenomegaly	74	41%
Rash on the skin	54	30%

The most common clinical features were Fever -100%, followed by Vomiting in 85%, Diarrhea in 78%, Weakness in 65%, Coated tongue in 59%, Hepatomegaly in 48%; Splenomegaly in 41%; Rash on the skin in 30% .

## DISCUSSION

Typhoid fever is a life-threatening disease occurring more frequently in under developed areas of the world and it continues to pose a major public health problem. There are around 16 million new enteric fever cases reported

globally.<sup>5</sup> The annual incidence of enteric fever has been reported as more than 13 million cases in Asia alone and it causes annual deaths of more than 0.6 million across the world.<sup>6</sup> The incidence of Typhoid fever in India is 2.14 per thousand populations.<sup>7</sup> The incidence of typhoid fever in the younger age group is also on the increase and the disease which was reported to be very rare below the age of three years is not correct and now there is documented evidence that enteric fever will not spare any age.<sup>8</sup> In our study we have seen that The majority of the of the patients were in the age group of 9-12 were 29.83%, followed by 6-9 Were 24.86%; 3-6 were 20.99%, 1-3 were 13.81%, <1 were 10.50%. A study done by R Modi *et al* also reported maximum incidence of typhoid in the age group 6 to 10 year.<sup>33</sup> Another study also reported maximum number of cases in the age group above 5 years.<sup>34</sup> This is common in older age group this may be attributed due to the outside eating habits of the children. The majority of the were males i.e. 58.01% followed by 41.99% were females. Similar results found in other studies<sup>11,12,13</sup> The most common clinical features were Fever -100%, followed by Vomiting in 85%, Diarrhea in 78%, Weakness in 65%, Coated tongue in 59%, Hepatomegaly in 48%; Splenomegaly in 41%; Rash on the skin in 30%. These results were similar to Ramaswamy Ganesh *et al*<sup>14</sup>.

## CONCLUSION

The majority of the of the patients were in the age group of 9-12 Yrs. of age, majority of the patients were male and most common clinical features were Fever, Vomiting, Diarrhea, Weakness, Coated tongue, Hepatomegaly, Splenomegaly.

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