

Retrospective Analysis of Patients with Typhoid Fever Visited in a Tertiary Care Hospital

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ABSTRACT

Background: Enteric fever is a global health concern prevalent extensively in the developing republics of tropics. The present study was conducted with the aim to retrospectively assess the incidence of typhoid cases reporting in the hospital.

Materials and Methods: The study enrolled all the patients reporting to the OPD of Department of General Medicine, Rama Medical College Hospital & Research Centre, Hapur, Uttar Pradesh, India. The study was conducted in a retrospective manner. Only subjects without any related co-morbidities were enrolled in the study. Subjects more than 25 years of age were included in the study. All the data thus obtained was arranged in a tabulated form and analyzed using SPSS software.

Results: The mean age of the subjects was 43.76 \pm 2.98 years. Majority of subjects were between 30-40 years of age. The incidence of typhoid fever came out to be 28.3%.

Conclusion: The incidence of typhoid in our study was 28.3%

indicating an urgent need to make people aware about hygienic conditions.


Keywords: Enteric, Patients, Retrospective.

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INTRODUCTION

Enteric fever is a global health concern prevalent extensively in the developing republics of tropics. *Salmonella typhi* and *paratyphi A* are the principal types of *Salmonellae* accountable for enteric fever cases in India especially in summer. There have been cases of an surge in multi-drug resistance strains in *Salmonella* subjects.¹ It leads to considerable loss of human power and financial condition of the society as well as the family. Confrontation to frequently encountered antibiotics like chloramphenicol, co-trimoxazole and ampicillin have been observed from different portions of India over the last two decades.² In the recent reports, fluoroquinolones and cephalosporins have attained reputation in the management of enteric cases.³ The present study was conducted with the aim to retrospectively assess the incidence of typhoid cases reporting in the hospital.

MATERIALS AND METHODS

The study enrolled all the patients reporting to the OPD of Department of General Medicine, Rama Medical College Hospital & Research Centre, Hapur, Uttar Pradesh, India. The study was

conducted in a retrospective manner. The study was approved by the institutional ethical board and all the subjects were informed about the study and a written consent was obtained from them in their vernacular language. Blood was withdrawn from the antecubital vein under complete aseptic condition and sent for blood culturing. They were processed by standard methods. All the obtained isolates of *salmonellae* from the blood were identified by undergoing biochemical tests. The complete demographic details, medical history, socioeconomic status of the subjects was recorded in a tabulated form. Only subjects without any related co-morbidities were enrolled in the study. Subjects more than 25 years of age were included in the study. The subjects detected with typhoid were managed according to the guidelines and were made aware about the etiological and risk factors of typhoid. All the data thus obtained was arranged in a tabulated form and analysed using SPSS software.

RESULTS

The study enrolled a total of 700 patients, out of which 200 were detected with enteric fever. The mean age of the subjects was

43.76 \pm 2.98 years. Majority of subjects were between 30-40 years of age. The incidence of typhoid fever came out to be 28.3%. Table 1 and Graph 1 shows the frequency distribution of

typhoid fever cases according to gender. There were 125 (62.5%) males and 75 (32.5%) females. The study clearly demonstrated male predominance.

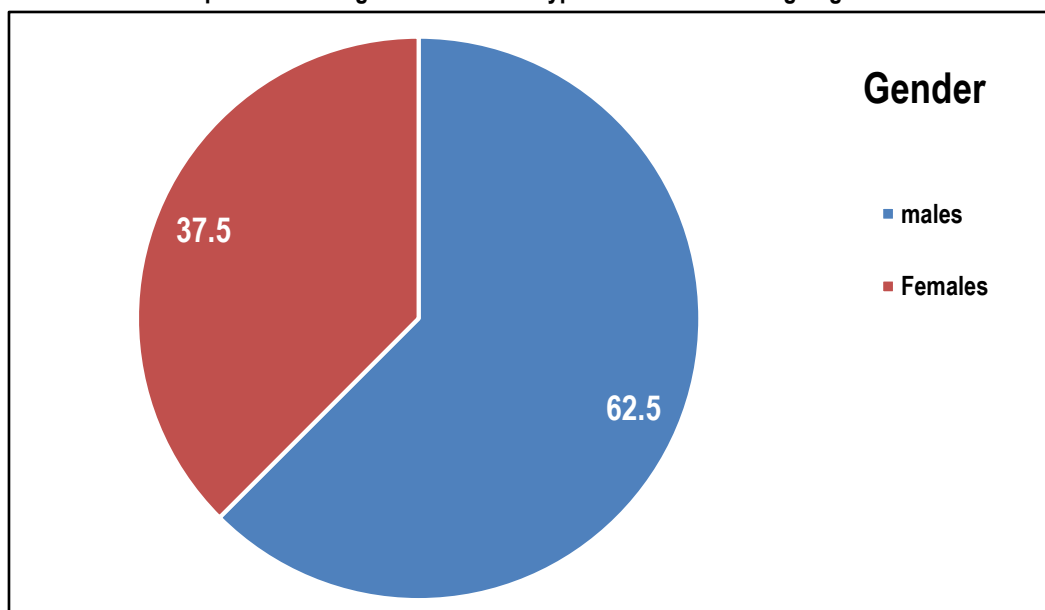
Table 1: Incidence of typhoid amongst subjects

Gender	n	%
Male	125	62.5
Female	75	37.5
Total	200	100

Table 2: Age wise distribution

Age	n
Less than 20	35
21-30	20
31-40	10
41-50	80
ABOVE 51	55

Graph 1: Percentage distribution of typhoid cases according to gender



DISCUSSION

Enteric fever is a major public issue in any developing country with detection of salmonella species continually occurring through the entire year. This indicates that safe drinking water and sanitation have not provided much or a huge frequency of carriers are available in the society. Isolation frequency of salmonellae have elevated from 109 in 2003 to 170 in e 2005. Appropriate sanitation, public education, and vaccination are long-term precautionary measures that would progress this situation. S typhi has been regarded as a main human pathogen for years, flourishing in conditions of poor sanitation, herding, and social chaos. It was accountable for Great Plague of Athens by the end of the Peloponnesian War. ⁴ The name itself S typhi is derived from the Greek word typhos, an ethereal smoke that was supposed to lead to disease and madness. In the advanced phases of enteric fever, the patient's consciousness level is widely clouded. The advent of antibiotics have evidently reduced the

incidence of typhoid fever in the developed nations, it still remains an endemic in the developing nations. ⁵ The three widely known outbreaks of enteric fever within the States were found to be due to imported food or to food handlers from the endemic regions. Strangely, only 17% of cases were found to be acquired domestically due to a carrier. ⁶ In the present study, a total of 700 patients, out of which 200 were detected with enteric fever. The mean age of the subjects was 43.76 \pm 2.98 years. Majority of subjects were between 30-40 years of age. The incidence of typhoid fever came out to be 28.3%. There were 125 (62.5%) males and 75 (32.5%) females. The study clearly demonstrated male predominance. Enteric fever occurs globally, chiefly in developing countries whose sanitary situations are poor. Enteric fever is endemic in Asia, the Caribbean Africa, Latin America and Oceania, but 80% of situations are seen in Bangladesh, Indonesia, China, India, Nepal, Laos, Pakistan, or Vietnam. ^{7,8}

Chloramphenicol is regarded as the mainstay of the treatment since its advent in the year 1948. Management with this drug has decreased mortality and morbidity because of this disease.⁹ There has been increase in the incidence of resistant strains of salmonella. According to a study of Gopal Nath et al in the year 1999¹⁰, mainstream of the strains were V1 resistance negative.

CONCLUSION

Enteric fever is widespread problem globally primarily associated with improper sanitation and drinking water facility. The incidence of typhoid in our study was 28.3% indicating an urgent need to make people aware about hygienic conditions.

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