

CASE STUDY ON TYPHOID FEVER

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Received date: 29 June 2019

Revised date: 19 July 2019

Accepted date: 09 August 2019

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ABSTRACT

Typhoid fever is a common public health problem. All cases may not have typical presentation with fever, toxemia and constipation in the first week and complications in the form of intestinal haemorrhage and intestinal perforation in the third week. Unusual presentations of typhoid fever include jaundice, abdominal lymphadenopathy, acalculous cholecystitis, splenic and liver abscess, myocarditis and pneumonitis. We report a case of typhoid fever in 3 different aged cases of males as well as females who presented with fever, frank jaundice and thrombocytopenia. Early diagnosis and prompt treatment is the key to successful outcome.

KEYWORDS: Salmonella typhi, Antigen, Widal test.

INTRODUCTION

Typhoid fever is an important public health problem caused by *Salmonella typhi* and *Salmonella paratyphi*.^[1] The cells of *Salmonella typhi* are rod shaped 2-3 μm long and 0.4-0.6 μm diameter. The most common method of spread is by ingestion of contaminated food and water.^[1,2] It is an acute systemic ailment caused by bacterial invasion of Peyer's patches in the ileum leading to bacteremia and multiplication of bacteria in the phagocytic cells of liver, spleen, and lymph nodes. Fever, toxemia and constipation in the first week, leading to abdominal discomfort, rose spots on trunk, splenomegaly, diarrhoea and vomiting in the second week and further leading to complications in the form of intestinal haemorrhage and intestinal perforation in the third week are the typical features of typhoid fever. However, all patients of typhoid fever do not have typical features and atypical presentations are not uncommon. Some of the common signs and symptoms of typhoid include high fever, profuse sweating, headache, muscular pain, abdominal bloating, discomfort, nausea, vomiting, loss of appetite, diarrhea or constipation, fatigue, exhaustion, gastroenteritis, abdominal pain and enteric.^[2] Various techniques are being used for the diagnosis of typhoid fever such as cultural technique, serological test, biochemical test and molecular technique. The widely used diagnostic practices include Widal test and blood culture because these methods are inexpensive while the other methods are invasive, tedious, and time consuming and so expensive.^[3]

Pathogenesis: The mechanism of the action of the typhoid fever is shown in the fig.1.

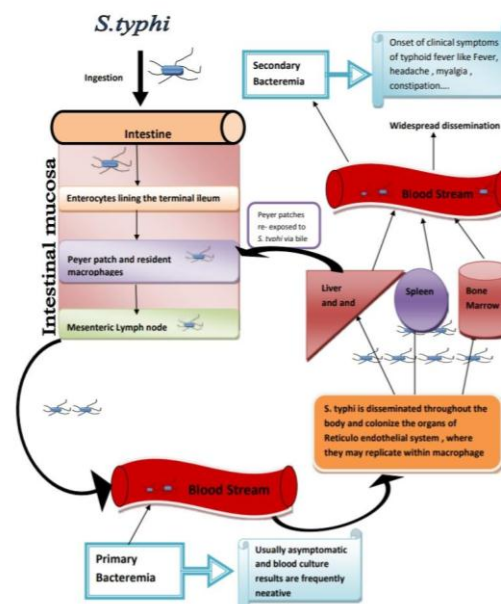


Fig. 1: Pathogenesis.

CASE REPORT

At the different time intervals of the year 3 different cases were judged in our hospital with history of fever for the last one week and jaundice for the last 2 days.

The patient were suffering body temperature ranging from 105 to 107°C. The family background when was studies showed no diseases to their family members. When the Case were subjected to the Varad hospital situated in MAJALGAON, Dist beed the doctor advised all the subjects to have a medical tests to make clear that they were suffering from the Typhoid fever. After the lab reports it was clear that the patients were all subjected to the Typhoid fever. The Case reports are as follows.

Lab reports

The obtained lab reports are illustrated in the given below tables.

Case 1: Table 1.

Sr. No	Lab test	Results
01	Body Temp	40 °C
02	TLC	80:14
03	Platelets	2.5 Lakh
04	ESR	17
05	Total Bilurubin	0.9
06	Dengue test	Negative
07	S.Typhi O antigen titre	1:360
08	S.Typhi H antigen titre	1:160
09	Protein	06

Case 2: Table 2.

Sr. No	Lab test	Results
01	Body Temp	38
02	TLC	82:16
03	Platelets	3.8 Lakh
04	ESR	16
05	Total Bilurubin	0.4
06	Dengue test	Negative
07	S.Typhi O antigen titre	1:310
08	S.Typhi H antigen titre	1:180
09	Protein	02

Case 3: Table 3.

Sr. No.	Lab test	Results
01	Body Temp	37
02	TLC	80:14
03	Platelets	1.7 Lakh
04	ESR	17
05	Total Bilurubin	0.7
06	Dengue test	Negative
07	S.Typhi O antigen titre	1:290
08	S.Typhi H antigen titre	1:170
09	Protein	2.2

DISCUSSION

A rapid and sensitive method for the detection of Salmonella typhi would help in relieving patients' suffering and would protect from the fatal complication of typhoid like perforation of the intestines and typhoid meningitis. The early and definitive diagnosis of typhoid

fever can make possible specific treatment at an early stage of the disease, leading to rapid elimination of the pathogen and helping in the epidemiological investigation of food borne outbreaks. The most preferential methods for the diagnosis of typhoid fever currently used are blood culture and the Widal test. Due to low cost, the Widal test is mostly used but it has some disadvantages like it cannot detect the disease at the early stage because specific antibodies take at least 1 week to reach detectable level. Along with that, it is nonspecific and particularly unreliable with single titers. In the present study, Widal test was positive in 20% of healthy persons without clinical signs because these healthy persons were living in endemic areas. This finding suggested that the Widal test could give an unacceptable level of false positive results.^[4]

Treatment

As we know that in this rapid 21st century antibiotics are only the main source for the treatment of the typhoid. Rather than antibiotics several herbal plants can also be used. But in the patient's above the course of Antibiotics was performed. The drugs prescribed were as follows:

- ❖ Piperacillin and tazobactam injection.
- ❖ Ceftriaxone Azithomycin Ciprofloxacin, Azithromycin, Amoxicillin, Chloramphenicol, Trimethoprim- sulfamethoxazole.

The all the above dose prescribed depends on the type of the fever condition. In severe case the direct high dose was to be prescribed.

The combination of the **Piperacillin and tazobactam injection is used mostly**. So the given below is the Figure 2 showing the dosage form.

CONCLUSION

As a conclusion it is must essential to care towards such diseases. In particular situations the case can be fatal. So by proper dose it can be cured.



Fig. 2: Drug solution.

ACKNOWLEDGEMENT

We all the authors are very thank full to the Varad hospital, Majalgaon, Maharashtra for helping us to conduct the studies. We are also thankful to Ramchandra Pathology lab, Majalgaon, Maharashtra for proving the accurate reports. Last but the least we are graceful to all the patient's who provided all the necessary information related to their problem which led us to the final conclusion.

Conflict of Interest: Authors declared that there are no conflicts of interest.

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