

THE CLINICAL PROFILE OF DENGUE PATIENTS IN CHILDREN

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Abstract

Background: To study the clinical profile of dengue in children

Methods: The hospital based study was conducted on patients presenting to paediatric hospital, who fulfilled inclusion and exclusion criteria.

Results: Based on the symptoms, the most common symptoms noticed were fever 94.00% followed by myalgia 85.00% decreased appetite 83%, retroorbital pain in 84.0% and vomiting 81.00%

Conclusion: It concluded that common symptoms observed were fever, myalgia, decreased appetite and headache. The common complications presented were hepatic dysfunction and shock with no mortality indicating the presence of less virulent organisms..

Keywords: Dengue, Complication, Shock

Introduction

India is one of the seven countries in the South-East Asia region regularly reporting incidence of dengue outbreaks due to its high incidence which constantly threatens the health care system. The first confirmed case of dengue fever in India dates back to 1940s, and since then more and more new cases have been reported which mostly occurs in epidemics often resulting in high morbidity and mortality.^{1,2}

Fatal form of the disease, severe dengue fever has been reported in India from time to time in Kolkata, Delhi, and Chennai. All the four serotypes of the virus have been in circulation and reported in Tamil Nadu. During all these epidemics infection occurred in all the age groups and more so in adults in the age group of 16 -60 years.^{3,4}

Material and Methods

Study Design: Hospital-based cross-sectional study.

Inclusion criteria

- Children with age group of 0-18 years. Admitted with symptoms of dengue fever based on WHO criteria. NS1 antigen and IgM dengue antibody positive, cases by ELISA technique.

Exclusion criteria

- Children with IgG dengue antibody positive.
- Children with enteric fever and malaria

Observations

Table 1: Distribution of Cases According to Age Group (years)

Variable	Dengue Positive(n=100)
Age	10.51±2.16
Male : Female	64 : 36

Mean age was 10.51±2.16 year in dengue positive cases.

Table 2: Clinical profile

Clinical profile	No of cases	Percentage
Fever	94	94.00
Myalgia	85	85.00
Retroorbital pain	84	84.00
Decreased appetite	83	83.00
Vomiting	81	81.00
Headache	80	80.00
Pain abdomen	80	80.00

Abdominal distension	67	67.00
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Based on the symptoms, the most common symptoms noticed were fever 94.00% followed by myalgia 85.00% decreased appetite 83%, retroorbital pain in 84.0% and vomiting 81.00%

Table 3: Distribution of Cases According to Complication

Complication	No of cases	Percentage
Bleeding	52	52.00
Myocarditis	3	3.00
Shock	34	34.00
Convulsion	1	1.00
No Complication	11	11.00
Total	100	100.00

According to complications, in dengue positive cases, bleeding was the most common complication seen in 52.00% cases while shock, myocarditis, and convulsion were present in 34.00%, 3.00% and 1.00% of cases respectively.

Discussion

Dengue is a major international health concern that is prevalent in tropical and sub-tropical countries. Since the first confirmed case of dengue in India, during the 1940s, intermittent reports from Delhi, Ludhiana, Mangalore, Vellore and from other states have been published. The diagnosis is by clinical profile but they can present with varied manifestation⁵⁻⁶.

There is a steady increase in the outbreak of dengue fever over the years and so among children. This is due to the rapid urbanization with unplanned construction activities and poor sanitation facilities contributing fertile breeding grounds for mosquitoes. Due to an increase in the awareness among health care professionals following the initial epidemic and the availability of diagnostic tests have contributed to the increased diagnosis⁷.

A outbreak of dengue fever during pre-monsoon and monsoon season reported due to stagnation of water after a bouts of rainfall which facilitate vector breeding. This highlight the preventive measures against dengue fever should be taken during water stagnation periods after the initial bouts of rainfall and at the end of monsoon.

In our study mean age was 10.51±2.16 year in dengue positive cases. This may be due to out-door activities of these children, where chances of getting bitten by mosquitoes are more. Similar finding was observed in other studies⁸⁻¹⁰.

Boys were slightly more affected then girls were also observed by Selvan *et al*¹⁰ and Sahana *et al*⁹ and similar pattern was seen in the retrospective analysis of the 2006 North Indian Dengue outbreak¹⁴. This may be due to out-door activities of these children, where chances of getting bitten by mosquitoes are more.

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Raj *et al*¹¹ observed that shock was the most common and difficult to treat complication despite appropriate fluid management in accordance with WHO regimen. 20(10.2%) children had shock, of which 7 were refractory to fluid therapy and blood products (whole blood, packed cell volume, FFP) given as indicated.

Conclusion

It concluded that common symptoms observed were fever, myalgia, decreased appetite and headache The common complications presented were hepatic dysfunction and shock with no mortality indicating the presence of less virulent organisms..

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