

Brief Report

Dengue fever: atypical manifestation

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ABSTRACT

Dengue fever is affecting millions of population globally. For the past one decade, we have seen several outbreaks and even causing significant mortality of affected population. We witnessed numerous pattern and multisystem presentation of dengue in this period. The CNS manifestation like encephalitis, polyneuropathy (GB like syndrome) and paresthesias were uncommonly reported priorly. Pancreatitis, polyserositis, carditis of varying severity and hepatic failure are the, some of atypical manifestations observed in recent out breaks. So dengue illness can presents with multi system involvement and can account to significant mortality. Here an attempt was done to present varying, uncommon and atypical manifestation of dengue illness.

Keywords: Dengue fever, Multi system involvement, Significant mortality, Atypical manifestation

INTRODUCTION

Outbreaks of dengue infections, continue to pose problems in terms of diagnosis and treatment. The variety of manifestation and multisystem involvement make difficult to predict prognosis .some of the manifestations are due to direct viral involvement⁴ others are, secondary manifestations of MODS. Dengue illness is a global illness with estimated 50-100 million cases each year by WHO.⁵ The attack rates and disease patterns are dynamic and different, across the region. Climatic conditions are responsible for increasing incidence and morbidity of dengue illness.¹¹

The differential diagnosis of dengue include the following

- Malaria
- Leptospirosis
- Chikungunya
- Rickettsial infection
- Infectious mononucleosis

- Bacterial sepsis
- SLE, Vasculitis syndromes

Dengue clinical illness varies in presentation and extent of disease involvement. Each year newer clinical manifestations have been described. Ethnic differences may exist in susceptibility and resistance to dengue.¹³ Here an attempt was made, to note different characteristics and atypical presentations of dengue.

CONSTITUTIONAL SYMPTOMS

Anasarca occurs as part of capillary leak syndrome and may persists for weeks. Multiple serosal membranes inflammation leading to polyserositis, is noted in moderate to severe dengue illness. Often the effusive fluid is exudates, and requires paracentesis (drainage) in some individuals. Lymphadenopathy is uncommonly seen in our geographical location in association with dengue infection. Myalgia and fatigueness not only occur during illness and can persists for prolonged weeks in some individuals.⁴

Rhabdomyolysis is uncommon in dengue illness,² but can lead to ARF and electrolyte disturbances.²

Spontaneous spleen rupture and lymph node infarction have been noted in some individuals.⁴

CARDIOVASCULAR MANIFESTATIONS

- Cardiogenic shock
- Pulmonary oedema
- Brady arrhythmia (severe sinus bradycardia), Heart block
- Tachyarrhythmia - atrial fibrillation

Some of the severe dengue illnesses patients, present with features of heart failure including acute pulmonary oedema, reversible myocardial dysfunction have been noted in 2D ECHO, in these groups. Brady arrhythmia often asymptomatic and rarely requires pacing. Myocarditis and pericarditis are responsible for some of these cardiovascular manifestations.⁴

NEUROLOGICAL MANIFESTATION^{3,4,9}

Altered sensorium, subdural effusions and signs of raised intracranial pressure secondary to bleeding have been reported.¹ These manifestations may secondary to hyponatremia and encephalitis.

Symmetric encephalopathy can also be produced to hepatic and renal failure. The organ failure occurs, secondary to multiorgan dysfunction syndrome. The other unusual manifestations include Transient paresis of limbs, spasticity, cranial nerve palsies^{3,6,7} and convulsions. Fatal cases with encephalitic manifestations have been reported in Indonesia, Malaysia, Myanmar, India and Puerto Rico.

The sensory system manifestations include burning and numbness in acral areas. Mononeuropathy and rarely Guillain-Barre like syndrome have noted during illness or post recovery period.⁴

Other uncommon neurological features⁴ include

- Headache
- Papilloedema
- Myoclonus
- Pyramidal signs
- Myelitis

Some of the neurological manifestations attributable to DIC and haemolytic uremic syndrome 1. The serotypes 2 and 3 reported to cause neurological manifestations.⁴

Psychiatric manifestation include restlessness,² Sleeplessness and behaviour abnormalities⁴ and asthenia have been noted some individuals.

GIT MANIFESTATIONS^{7,8,10}

- Pain abdomen
- Acute hepatic failure
- Shock liver
- Acute peritonitis
- Acute pancreatitis
- Moderate ascites
- Acute inflammatory colitis⁶
- Bilateral parotitis

Severe pain abdomen is one uncommon manifestation seen in dengue. Acute abdominal pain may be secondary to acute peritonitis, acute pancreatitis or acalculous cholecystitis. Mild to moderate elevation of hepatic transaminases are common in dengue infection. The hepatic manifestations may be related, to direct disease process or shock and ischemia. Acute hepatic failure is one of the uncommon and serious manifestation reported in certain individuals.³ Some of these patients show moderate to severe (>10 folds) elevations in transaminases.

Acute pancreatitis⁴ and moderate ascites also been noted some cases. Acalculous cholecystitis is often asymptomatic and rarely requires surgical intervention. Gall bladder wall oedema is one of common observation, noted by ultrasound abdomen, in patients of dengue fever.

MUSCULOSKELETAL FEATURES¹²

- Polyarthrititis
- Myositis
- Rhabdomyolysis

Polyarthralgia involving large synovial joints and even axial joints is common feature in dengue illness. A true severe arthritis is less common compared chikungunya fever.

RENAL MANIFESTATIONS^{4,6}

- Haematuria
- Acute renal failure

ARF often occurs in association with MODS and cardiogenic shock. ARF in these individual is of prerenal origin. Rhabdomyolysis causes toxic tubular injury, may also contribute to ARF in some of individuals. Some of cases of renal failure are attributable to haemolytic uremic syndrome.

DERMATOLOGICAL FEATURES^{6,9}

Generalized erythematous hue to skin (flushing), confluent erythema and sometimes morbilliform rash have been observed in our geographical area, apart from manifestation from common thrombocytopenia.

Cutaneous hypersensitivity reactions have been noted in few individuals varying from benign rashes to angioedema like phenomenon.

OTHERS¹³

DIC: Disseminated intravascular coagulation has been observed in severe dengue illness.

CONCLUSIONS

Dengue fever is multisystem disease of varying severity. Its spectrum includes, benign self-limiting disease to MODS with variable mortality. Atypical manifestations and uncommon, clinical pattern of presentations, have been noticed increasingly since few years. So early recognition and awareness may help for diagnosis and treatment of dengue fever.

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