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Medicine

SUBACUTE THYROIDITIS : A RARE PRESENTATION OF EXPANDED DENGUE SYNDROME

KEY WORDS: expanded dengue syndrome, subacute thyroiditis, dengue hemorrhagic fever, arboviral

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ABSTRACT

Dengue fever is a mosquito borne arboviral disease endemic in tropical countries. Spectrum of this disease range from mild selflimiting fever to potentially fatal multiorgan dysfunction. Unusual or atypical manifestations with severe organ involvement have been increasingly reported in Dengue haemorrhagic fever and also in dengue patients who do not have evidence of plasma leakage. It may be explained as complications of severe profound shock or associated with underlying host conditions/ diseases or coinfections. Here, we report a case of Expanded dengue syndrome presenting as Subacute thyroiditis.

INTRODUCTION

Over the past three decades, there has been a dramatic global increase in frequency of dengue fever. It is caused by four serotypes (DEN 1- 4). Spectrum of this disease range from mild selflimiting fever to potentially fatal multiorgan dysfunction. Recently, certain atypical manifestations of dengue fever have been included under expanded dengue syndrome. It may be explained as complications of severe profound shock or associated with underlying host conditions/diseases or coinfections.

CASE REPORT

A 30 year old male was admitted in the hospital with 5 days history of fever, headache, abdominal pain associated with vomiting and low backache. No history of blood in urine, bleeding from gums and rashes in the body. At the time of admission, his platelet count was 1,31,000/cumm, but it gradually reduced on subsequent days to 51,000 and 34,000/cu mm on day 2 and day 3 of hospitalisation respectively. Patient developed black stool. So, he was transfused one unit of SDP. On day 7 of illness, patient became afebrile.

His routine laboratory investigations were done on Day 1 of hospitalisation: Hb – 15g/dl, hematocrit – 41%, TLC – 2580/cu mm, platelet count- 1,31,000/cu mm, urea- 31mg/dl, creatinine – 0.9mg/dl, SGOT-368 IU/L, SGPT-263IU/L, Bilirubin-0.5mg%, alkaline phosphatase- 75IU/L, dengue NS 1 antigen positive and IgG positive. IgM serology was negative, malarial parasite negative, HIV negative, Chikungunya negative, ESR 27 mm in first hour. So, based on clinical features and laboratory investigations patient was diagnosed as Secondary dengue infection.

On day 2 of hospitalisation, patient developed complaints of increased sweating, palpitations, restlessness, increased frequency of stools and reduced sleep. The next day patient developed a painfull swelling in neck. On examination, the swelling was warm and tender which moved on deglutition and not on protrusion of tongue. It was progressively increased in size. So a provisional diagnosis of Thyroiditis was made. He was advised free T3, T4 and serum TSH, USG neck, FNAC and anti TPO and anti TSH R antibodies.

His reports were Free T3 – 260 ng/dl (70 to 204), T4 – 16.11 microg/dl (4.6 to 12.5) and S.TSH – 0.13 microIU/ml (0.35 to 5.5). USG neck showed enlarged right lobe of thyroid gland of size 4.2 × 3.8 cm, heterogenous in echotexture and shows

increased vascularity sign of thyroiditis. Anti TPO and Anti TSH R antibodies were negative and FNAC report was subacute thyroiditis.

So the patient was diagnosed as Secondary dengue infection with subacute thyroiditis categorised under Expanded dengue syndrome.

DISCUSSION

Dengue virus infection may be asymptomatic or symptomatic. Based on 1997 WHO classification, symptomatic dengue infection may be in the form of Dengue fever(DF), Dengue haemorrhagic fever(DHF) and Dengue shock syndrome(DSS).^[1] In 2009 WHO classification system, Dengue fever was divided into dengue with or without warning signs and severe dengue.^[2] However in 2011, revised WHO guidelines, dengue was divided into DF, DHF without shock or with shock and Expanded dengue syndrome.^[3]

Expanded dengue syndrome is a new entity added to the classification system to incorporate a wide spectrum of unusual manifestations of dengue infection affecting various organ systems like aseptic meningitis, encephalitis, intracranial haemorrhage,^[4] ARDS, acute cholecystitis etc..

One of the rare manifestations previously reported was subacute thyroiditis associated with dengue fever.^[5] In this case, the patient developed pain and swelling in the region of thyroid gland. Based on the laboratory studies and clinical features a diagnosis of subacute thyroiditis was made.

Subacute thyroiditis also termed as de Quervain's thyroiditis or viral thyroiditis develop during viral infection or as a post inflammatory process. Many viruses have been implicated, including mumps, coxsackie virus, influenza, adeno and echo virus. It is characterised by neck pain or discomfort, a tender diffuse goitre and predictable course of thyroid function evolution. Hyperthyroidism is typically the presentation followed by euthyroidism, hypothyroidism and ultimately restoration of normal thyroid function.

In our case, patient was in hyperthyroid state. Usually no anti thyroid medications are required for this condition. He was treated with Tab Propranolol for symptomatic relief and Tab Paracetamol for pain. Patient was asymptomatic while discharge and was advised follow up thyroid profile studies after 15 days to assess thyroid hormone status.

CONCLUSION

Hence, subacute thyroiditis may develop during the course of dengue fever and should be included as a manifestation of Expanded dengue syndrome. In tropical countries like India especially during rainy season, clinicians should be aware of such a presentation of dengue infection.

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