Tropical Pyomyositis in Dengue Fever - A Rare Presentation

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❖ INTRODUCTION

Dengue is an acute mosquito born infection caused by dengue virus belonging to flavivirus genus. We hereby report an interesting case of pyomyositis in a child diagnosed with dengue fever.

❖ CASE SUMMARY

- **Presentation-** 9-years-old girl, presented with fever, abdominal pain, vomiting and decreased urine output since 4 days
- **Examination-** Hypotensive (required intravenous fluids), Pallor, Rest of systemic examination normal
- **Imaging-** Initial Abdominal ultrasound was normal. Two days later, abdominal pain worsened and repeat ultrasound showed large collection (5 x1.3 cm) in right lumbar region. Computed Tomography of abdomen showed anterior abdominal wall muscle abscess in right lumbar region without intraperitoneal extension (Fig.1).
- **Laboratory workup-** revealed positive Dengue IgM serology by ELISA and child was managed symptomatically. Her biochemical investigations and immunodeficiency workup was normal.
- **Surgical drainage & management-** pus drained and negative suction drain was put *insitu*. Pus culture showed growth of methicillin-resistant *Staphylococcus aureus* sensitive to vancomycin which was given for 14 days. Repeat ultrasound on day 12 of admission showed minimal residual collection (7.1mm) and drain was thereby removed. She was discharged on oral antibiotics for one more week and was asymptomatic on her outpatient visit a month later.

Figure. 1A

❖ DISCUSSION

Dengue infection is a major vector-borne disease in tropical and subtropical regions¹. Tropical pyomyositis is characterized by skeletal muscles abscesses, due to transient bacteraemia.

Staphylococcus aureus is the most common etiological agent. Bacteremia in dengue is postulated due to antibodies against dengue virus nonstructural protein 1 which cross-react with endothelial cells, resulting in disintegration of endothelial cells via caspase-dependent apoptosis and entry of surface bacteria into the bloodstream². Also, leukocyte infestation causes relative immunosuppression in dengue, contributing to greater susceptibility to bacteremia and sepsis. Myositis associated with viral infection maybe seen due to direct viral invasion of the muscle fibres and toxin generation. Predisposing factors to superadded bacterial infections can be immunodeficiency, trauma, malnutrition or concurrent infection³.

Fig.1B

Fig.1 A & B:
Computed Tomography of abdomen shows a well defined peripherally enhancing collection measuring 2.4 X 6.2 X 16.9 cm in anterior abdominal wall muscle in right lumbar region without intraperitoneal extension

❖ CONCLUSION:

A high index of suspicion for bacteremia and development of septic foci among critically ill patients with dengue is thus warranted.

❖ REFERENCES

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