

**(Refer to page 34)**

**Answer: Dengue fever with Herman's rash.**

Dengue presents as classic dengue fever or haemorrhagic dengue. It is caused by Flavivirus, transmitted to humans by the *Aedes aegypti* mosquito.

Dengue rash or also known as **Herman's rash (Panel A)** appears as a maculopapular erythematous rash with islands of normal skin sparing or scarlatiniform (like Scarlet fever rash: it blanches upon pressure, **Panel B**). The clinical feature of dengue rash is classically described as "**Islands of white in a sea of red**". The erythematous rash (red appearance) is due to an increase in capillary permeability and fluid leakage as a result of damaged capillary walls from an immune complex reaction secondary due to the infection. The islands of white described in the rash (the spots of skin that are not erythematous) are areas where there is more oedema than the surrounding area as a result of a greater increase in fluid leakage.

During the last days of fever, petechiae may occur on the arms and legs or mucous membranes in half of the cases.

Herman's rash usually appears on the third to fourth day of the fever. It may start on the elbows and knees and spread caudally or on the chest and trunk and spread to the face, arms and legs. The rash usually lasts for two to three days and usually fades as the fever subsides by day seven from onset of illness.

In haemorrhagic dengue, rashes such as petechiae, purpura and ecchymosis are more prominent as a result of even greater capillary wall fragility.<sup>1</sup> The increased in vascular permeability leads to marked plasma loss in haemorrhagic dengue. Diffuse bleeding into the serous cavities (pleural or abdominal effusions) may manifest.<sup>1, 2</sup> Disseminated intravascular coagulation (DIC) may occur and eventually lead to haemorrhagic shock which may cause death.<sup>1, 2</sup> It is particularly important for clinicians to be aware of the atypical manifestations of dengue fever as they can be associated with significant complications.<sup>3</sup>

## REFERENCES

- 1: Orkin, Milton, et al. *A large medical book: dermatology*. 1<sup>st</sup> Edition. Connecticut: Publishing division of Prentice-Hall International Inc. 1991; 141.
- 2: Burns, Tony, et al. *Rook's textbook of dermatology*. 7<sup>th</sup> Edition. Massachusetts: Blackwell Publishing Company. 2004; 25.68-25.69.
- 3: Gulati S, Maheshwari A. Atypical manifestations of dengue. *Tropical Medicine and International Health* 2007; 12:1087-95.