Fixed Drug Eruption and Visceral Organ Disease: Is There a Link?

Fixed drug eruption (FDE) is considered to be a specific type of cutaneous adverse reaction to drugs, which may occur whenever the culprit drug is administered again. Recurrent events may affect the sites of previous eruptions, but may also induce additional lesions, sometimes leading to generalized and/or bullous FDEs. Persisting intra-epidermal effector-memory CD8+T cells are thought to play a major role in the reactivation of lesions, whereas regulatory CD4+T cells migrating transiently into the epidermis may lead to

the resolution of lesions. However, these important pathogenetic findings do not explain why certain areas of the skin are affected and others are not. Reports on strong correlations between specific drugs and lesions on certain sites of the skin or mucosa have not provided convincing answers to that question.

Dr Özkaya addresses the question differently (pp. 517–520) by referring to the so-called "maximal points of Head's zones".

H. Head first published on cutaneous paraesthesia in patients with visceral diseases in 1898, and more than 60 years later the maximal points of Head's zones were defined as the most active parts of projection areas of visceral organs to the skin. Viscero-cutaneous reflexes are thought to be the underlying pathway for the cutaneous projection of visceral diseases. Dr Özkaya assumes that such reflexes may induce alterations of the related cutaneous site, leading to a localized accumulation of drug-specific CD8+ T cells, which might be activated by specific drugs. Thus, lesions of FDE could develop primarily in the areas of these viscero-cutaneous reflexes.

This hypothesis sounds quite plausible, especially when looking at cutaneous disorders involving the sensitive nerval system, such as herpes zoster or notalgia paraesthetica.

But does it also work for FDE? I am not sure, but it would be worthwhile exploring this question. Researchers and clinicians should devise a study to investigate this issue further in a larger cohort of patients with FDE, taking into account the primary site of lesions, their relation to Head's zones, and the specific T-cell response. Perhaps the link will then finally be made.

REFERENCE

1. Head H. Sensory disturbance by visceral illness, 1898.

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