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Editorial

DRESS: a condition not to be missed

Drug reaction with eosinophilia and systemic symptoms (DRESS) is a life-threatening syndrome characterised by rash, fever, lymph node enlargement, eosinophilia, systemic symptom and internal organ involvement. Commonly used drugs that lead to this idiosyncratic reaction include allopurinol, sulfonamides, and aromatic anticonvulsants such as phenytoin, phenobarbital, and carbamazepine which are frequently used by our medical colleagues. The death rate in patients with allopurinol-associated DRESS is higher than that in DRESS cases due to other drugs.[1] Most of the DRESS cases we encounter are hospital in-patients and can therefore be acutely ill. According to Y Chan et al in their study of the pattern of dermatological diseases in a Hong Kong regional hospital, drug eruption constituted about 10% of the total in-patient consultations.[2] Although most of these cases were not DRESS, cases of DRESS are more likely to be encountered in the hospital than in the out-patient clinic. As the mortality rate of DRESS is 10 to 20%, early detection of skin abnormalities, improved accuracy of diagnosis, and efficacy of treatment all help to reduce its mortality. In-house dermatologists play an important role in this aspect. This is why acute hospital training is vital to our dermatology trainees. However, it is difficult to diagnose DRESS, as many of its clinical features mimic those found with other serious systemic disorders such as severe systemic infections. This makes the situation more complicated because systemic corticosteroids are the mainstay of treatment for DRESS but are detrimental in uncontrolled systemic infections. In this issue, a comprehensive review of DRESS is presented by JC Chan et al. As a dermatologist, a better knowledge of DRESS and a high index of suspicion may improve the diagnosis and management of this syndrome in clinical practice especially for those who work in a hospital setting.

The golden rule of confirming a drug allergy is the drug challenge test which must be avoided if a patient has developed severe reaction to the implicated drug. But in some difficult scenarios, there is no alternative to the suspected culprit drug. Other in-vitro laboratory tests may be considered. In some non-immediate hypersensitivity reactions, the lymphocyte transformation test (LTT), which measures the in vitro proliferation of T lymphocytes in the presence of a suspected drug, can be an in vitro means to confirm the diagnosis. The T-cell sensitisation is measured by means of the incorporation of 3H-thymidine during DNA synthesis.[3] It is expressed as a stimulation index which is the relation between the cell proliferation with antigen compared without antigen. This principle of the LTT has been confirmed by the generation of drug-specific T-cell clones and the finding that drugs can directly interact with the T-cell receptor without the need to bind to proteins or previous metabolism. The LTT has a main advantage of its applicability with many different drugs in different immune reactions as drug hypersensitivity reactions almost always involve drug-specific T cells. Its main disadvantages are that the test itself is rather cumbersome and technically demanding which has limited its accessibility and that an in-vitro proliferation

of T cells to a drug is difficult to apply to the clinical situation. Moreover, its sensitivity is limited.

To conclude, the diagnosis of drug hypersensitivity still depends on a combination of good drug history taking, thorough physical examination and different tests to detect involvement of the various organs, as none of the single tests available has per se a sufficiently good sensitivity.

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