## 痛風藥物過敏反應與痛風性關節炎治療之進展

## Drug Hypersensitivity and Recent Advance in Medical Treatment of Gouty Arthritis

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Drug hypersensitivity reaction (DHR) is one kind of adverse drug reaction (ADR)., DHR comprises less than 20% of all ADRs, but it sometimes is associated with high morbidity and mortality. The DHR mechanisms and risk factors related to patients and drugs are poorly understood. The most clinically relevant DHRs belong to the Type I or Type IV hypersensitivity reactions according to the Gell-Coombs system classification. Type I DHRs are immediate, IgE-mediated reactions which usually occurs within one hour after drug administration and mainly cause urticaria, anaphylaxis, and bronchospasm. In contrast, type IV DHRs are delayed hypersensitivity reactions mediated by drug-reactive T lymphocytes. Type IV reactions have recently been shown to be associated with class I and/or II human leukocyte antigen (HLA) alleles. HLA-allele-specific screening can be clinically used for the prevention of serious DHRs. The clinical manifestations of delayed DHRs include SCAR (severe cutaneous adverse reaction), Stevens-Johnson syndrome (SJS)/toxic epidermal necrolysis (TEN), acute generalized exanthematous pustulosis (AGEP), and drug reaction with eosinophilia and systemic symptoms/drug-induced hypersensitivity syndrome (DRESS/DIHS). One best example of delayed type DHRs is allopurinol-induced hypersensitivity syndrome. Allopurinol is a urate-lowering therapy (ULT) agent used to treat chronic gout. However, in Taiwan, allopurinol is sometimes associated with severe DHR symptoms, which include SJS/TEN and DRESS/DIHS and have been shown to be associated with HLA-5801, present in 9~11% of Han Chinese and in 1~6% of Caucasians. Since allopurinol is associated with severe DHRs, febuxostat, a new xanthine-oxidase inhibitor as a ULT agent, has been developed to treat gout. In this talk, the mechanisms of DHRs and the new ULT agent for the treatment of gout will be discussed.