

## Eosinophilic and Non-eosinophilic Asthma: Does Treatment Differ?

王鶴健

台大醫院 內科部

Asthma is a heterogeneous disease, many cells and cellular elements' are recognized to take part in disease pathogenesis. Granulocytes such as eosinophils and neutrophils form part of the inflammatory process in asthma. There is increasing evidence that inflammatory mechanisms other than eosinophilic inflammation may be involved in producing the final common pathway of enhanced bronchial reactivity and reversible airflow obstruction that characterized asthma. Only 50% of asthma cases are attributable to eosinophilic airway inflammation, this means that up to 50% of asthma cannot be attributed to eosinophilic inflammation, and represents asthma associated with non-eosinophilic processes (NEA). Recognized granulocyte phenotypes using induced sputum are eosinophilic (EA), neutrophilic, mixed granulocytic and paucigranulocytic asthma. The widespread use of inhaled corticosteroids in combination with long-acting beta2 agonists mainly based on the positive results from clinical study focused on EA patients. For NEA patients, Current standard anti-asthma treatment might show suboptimal results. New therapeutic options like macrolide, antioxidant might become an important additional therapy for NEA.