Introduction

There has been a considerable increase in our understanding of the role of arachidonic acid metabolites in asthma over the last decade. Arachidonic acid provides a source for both leukotrienes and prostanoids which have a diverse range of properties that are important in regulating the airway inflammatory response. It is clear that cysteinyl leukotrienes are important pro-inflammatory mediators in asthma which act to enhance bronchoconstriction. This has led to the development of a number of agents which either target the enzymes involved in leukotriene synthesis or are antagonists at specific leukotriene receptors. The development of these agents has allowed the role of leukotrienes in different variants of asthma to be studied. The other arm of arachidonic acid metabolism is the cyclo-oxygenase pathway. Cyclo-oxygenase exists in two forms—a constitutive form, COX-1, responsible for the production of housekeeping prostaglandins, and an inducible form, COX-2, which is involved in inflammatory processes. Prostanoids have a number of functions which can influence airway inflammation—for example, PGD_2 and $PGF_{2\alpha}$ are constrictor agents whereas PGE_2 is predominantly bronchoprotective. Recent studies have considered how alterations in prostanoid metabolism may contribute to asthma.

A greater understanding of leukotriene and prostaglandin synthetic pathways has, in particular, contributed to our understanding of aspirin intolerance and related syndromes such as aspirin induced asthma and nasal polyposis. The papers in this supplement contain contributions from a number of experts in the fields of leukotriene and prostaglandin cell biology and clinical pathophysiology, both inside and outside the lung. Their contributions have allowed us to compile a supplement which contains a great deal of important information that has implications beyond aspirin induced asthma. We thank the authors of these papers for their contributions and hope that this supplement will make stimulating reading for the wider readership of *Thorax*, and also serve as a reference source for those with an interest in the field.

The work was presented at the International Symposium on Aspirin Intolerance and Related Syndromes: a Multidisciplinary Approach, organised by the Catholic University of the Sacred Heart and the European Network on Aspirin Induced Asthma (AIANE) in Rome on 11–13 November 1999.

ALAN KNOX
ANDREW SZCZEKLIK
GIAMPIERO PATRIARCA