

## Introduction

### Anti-inflammatory treatment of childhood asthma: cromoglycate and nedocromil as non-steroidal alternatives?

Since asthma has been recognized as a chronic inflammatory disorder of the airways, anti-inflammatory drugs and, in particular, corticosteroids have become first-line treatment.<sup>1,2</sup> Concern remains on the potential side-effects of inhaled corticosteroids especially in children.<sup>3</sup> Inhaled steroids have an excellent safety profile, and are widely used in paediatric asthma treatment.<sup>4</sup> Their long-term use in young children is generally thought to be both safe and effective, but small systemic effects can be demonstrated even with moderate doses.<sup>5,6</sup> These effects include the short-term inhibition of growth of long bones, and the suppression of basal cortisol secretion levels. Apart from these, there are risks of local side-effects including hoarseness and thrush. It is, however, generally felt that the benefits of steroids in asthmatic children greatly outweigh the small potential risks.

Despite the low toxicity of inhaled steroids, the availability of non-steroidal anti-inflammatory medication for treating asthmatic children is highly desirable because of the relatively high numbers of asthmatic children requiring maintenance treatment, and the long duration of anti-inflammatory asthma treatment. Two effective non-steroidal anti-asthma drugs with anti-inflammatory activities are presently available: cromoglycate and nedocromil. Of these cromoglycate has been used for many years and has proven to be both effective and extremely safe. Cromoglycate has been advocated as a first-choice drug for moderate paediatric asthma where maintenance treatment is required.<sup>1</sup> Much less data are available on nedocromil, a novel pyranoquinoline dicarboxylic acid with a broad spectrum of anti-inflammatory actions.<sup>7</sup> Nedocromil is more potent than cromoglycate, but it has been difficult to prove its superiority to cromoglycate *in vivo*.<sup>8</sup> Data on the effect of nedocromil in children with asthma are scanty, and tend to confirm its effectiveness in mod-

erate asthma. The data presently available do not permit a clear positioning of the drug in clinical paediatric practice. Because nedocromil is one of the few drugs without steroid side-effects which can be applied in childhood asthma, and because it has anti-inflammatory effects, it deserves thorough study.

The present supplement issue of *Mediators of Inflammation* contains a selection of papers and abstracts on cromoglycate and nedocromil in childhood asthma from a recent symposium, where both clinical and laboratory studies on nedocromil were reported in order to get a better understanding of their mechanisms of action, especially in children. The editors think that publishing these original data may help in the further positioning of these drugs in the treatment of childhood asthma, an important and increasing disease with a major impact on childhood health.

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