Introduction

Inhaled corticosteroids: a tale of success in childhood asthma

The first inhaled corticosteroid, beclomethasone dipropionate, was introduced in 1973. Although it is known that corticosteroids act by inhibition of inflammatory processes, asthma research did not focus on this aspect of the disease until the early 1980s.

In Sweden, inhaled corticosteroids were first used to treat children with moderate to severe asthma in the mid 1980s. These drugs are the most potent anti-inflammatory agents available to treat asthma and several current international guidelines recommend them as first line treatment for childhood asthma. Early corticosteroid therapy is now acknowledged to have a disease modifying effect, reducing symptoms and improving lung function as well as decreasing hospitalisation.¹

Increased use of corticosteroids has been linked with dramatic reductions in hospitalisation of schoolchildren for asthma, for example in Sweden between 1985 and 1996.² However, decreased hospitalisation remains to be seen in preschool age children.

The trend towards increased corticosteroid use in children in Sweden has not been reflected throughout the world and there are striking differences in the prescribing of such treatment from country to country. In 1997, the proportion of antiasthma prescriptions that were for inhaled corticosteroids was relatively high (36–41%) in the UK, Italy, and Canada. In contrast, this proportion was far lower (0.4–11%) in the USA, Germany, Brazil, and Japan.³ Despite the significant advances in early treatment, the prevalence of childhood asthma is increasing.⁴ The reasons for this have not been conclusively established, but are believed to be related to changes in exposure to risk or pro-

tection factors among the general population. Rising disease prevalence results in an increased disease burden on society. Children with asthma and their families are affected, as the disease disrupts the social and emotional development of the child, interrupts sleep, and creates extra financial demands.

This supplement attempts to evaluate the current data on the use of inhaled corticosteroids in children with asthma, particularly in very young children, for whom optimal treatment regimens are unclear. Early intervention in very young children could have long term benefits.

In recent years, new data have emerged on the nature of inflammatory involvement in childhood asthma. Childhood wheezing is associated with infiltration of eosinophils, and inflammation probably begins at a very young age in the airways of infants with recurrent wheeze.⁵ This increased knowledge of the pathogenesis of the disease could potentially improve the therapeutic options and optimise the use of existing treatments.

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