Ketotifen in Bronchial Asthma

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As a result of intensive research to find a drug with an effect similar to that of sodium cromoglycate (SCG) in the prophylaxis of asthma but with oral administration, ketotifen has recently been introduced. We report on two trials to assess its efficacy in patients with bronchial asthma.

Trial 1, a double-blind, double-dummy comparison between ketotifen, 1 mg b.i.d., and SCG, 20 mg q.i.d. in atopic adult asthmatics not requiring oral corticosteroids and taking only minimal anti-asthmatic treatment is in progress. Symptomatic assessment is made by questionnaire and objective assessment by twice daily PEFR measurements and records of concurrent drug use. Once baseline values are established, patients are followed at fortnightly intervals for 3 months. Trial 2 was an assessment of the steroid-sparing effect of ketotifen in steroid-dependent asthmatics. In a multicentre, randomized, double-blind, parallel group study vs. placebo, 86 patients, aged between 26 and

1 Extended abstract

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74 years, were investigated by means of a questionnaire and recordings of twice daily PEFR and concurrent drug use. After a run-in period of 2 weeks ketotifen 1 mg b.i.d. or placebo was administered and the other medication kept unchanged for a further 2 weeks. On each subsequent week the total daily dose of oral prednisolone was reduced by 1 mg until the patient was off oral steroids or three 'adverse events' had occurred in 1 week. These events were defined as an increase in oral bronchodilator use by 50% or more, a fall in PEFR by more than 20% or the necessity to increase steroid usage.

20 patients, 11 in the SCG group and 9 on ketotifen, have completed trial 1 so far. No significant differences have yet emerged although there is a trend for a small increase in morning and evening PEFR and spirometric indices in the SCG group.

In trial 2 it was possible to wean off oral prednisolone altogether 10 patients out of 44 in the ketotifen group compared with 3 out of 42 in the placebo group ($p < 0.01$). Also the mean reduction in daily requirements for oral prednisolone from 8.4 to 4.4 mg in the ketotifen-treated patients was significantly different from that noted in the

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placebo group (7.9–6.2 mg). This difference in the reduction of oral steroids of 2.3 mg between the two groups compares favourably with the results of a trial conducted by the BTTA [1]

investigating the steroid-sparing effect of inhaled steroid aerosols where a difference of 3.0 mg between active and placebo aerosol was noted.

The main side-effect of ketotifen was drowsiness, occurring in less than 10% of the patients and not necessitating taking any of them off the drug. The final place of ketotifen in the overall management of asthma remains to be determined but the steroid-sparing effect demonstrated in the second

trial clearly indicated that the drug deserves further careful evaluation in a clinical setting.

Reference

1 British Thoracic and Tuberculosis Association: A controlled trial of inhaled corticosteroids in patients receiving Prednisone tablets for asthma. *Br. J. Dis. Chest* 70: 95 (1976).