BECLOMETHASONE DIPROPIONATE AEROSOL IN TREATMENT OF CHRONIC ASTHMA*

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In a population of 400 patients with chronic asthma treated with beclomethasone dipropionate aerosol (BDA) in a dose of 400 µg daily, 371 continued this treatment for a period of at least one year. Of these 371 patients, 55 had not previously received any form of corticosteroid therapy, but the remaining 316 had been on regular systemic treatment with either corticosteroids or corticotrophin for at least 6 months in an average dose equivalent to 8.5 mg prednisolone.

Where BDA was used as 'primary' treatment, it was completely effective (no systemic corticosteroid therapy required) in 55% of cases, but ineffective (regular systemic corticosteroid therapy required) in 13%. Used as 'secondary' treatment, BDA permitted the withdrawal of regular systemic corticosteroid therapy in 32% of cases and a reduction of 5 mg or more in daily prednisolone dosage in 27%, but was ineffective (maintenance dose not reduced) in 10%.

Factors shown to be of no value in predicting the response to BDA therapy included sex, age, age at onset of asthma, history of other allergic disorders and atopic status. The response was not related to the duration of previous systemic corticosteroid therapy, but in terms of dose reduction was better in patients who had been taking more than 10 mg prednisolone

daily, possibly because they had been on unnecessarily high doses. In general, those patients who had shown a good short-term and long-term response to systemic corticosteroids responded well to BDA therapy, but there were some exceptions.

After one year of treatment with BDA, 150 (40%) out of 371 patients with chronic asthma were able to do without regular systemic corticosteroid therapy, and an additional 138 (38%) required a maintenance dose of 5 mg or less of prednisolone daily. In patients previously on regular treatment with corticosteroids the introduction of BDA permitted a reduction in the mean maintenance dose of prednisolone from 8.5 mg to 3.3 mg daily.

Although 6.5% of the 400 patients treated with BDA developed oropharyngeal thrush and 3.2% developed hoarseness, it was necessary to withdraw this treatment in only 10 of the 39 patients in whom these side-effects were recorded.

The results of this study indicate that aerosol corticosteroid therapy alone or supplemented by systemic corticosteroids in a dose small enough not to cause side-effects can control the symptoms of chronic asthma in more than 75% of patients. The study failed to identify any specific factors which could be used to predict an individual patient's response to BDA, and this treatment is therefore worth a trial in every case of chronic asthma.

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