Cyclosporin for a severe case of aspirin-induced asthma

E. Nizankowska, R. Dworski, A. Szczeklik

Cyclosporin, an immunosuppressive drug, predominantly inhibits T-lymphocyte dependent immune responses by interfering with synthesis of lymphokines. T-lymphocytes are an important source of inflammatory mediators, and some aspects of asthma may be accounted for by alterations in release of cytokines [1].

Cyclosporin was used to treat a 42 yr old woman with asthma. She has been under our treatment since 1975 when diagnosis of aspirin intolerance was established [2, 3] by oral provocation tests. Skin tests to common airborne allergens were negative, serum immunoglobulin E (IgE) was 101 IU·ml⁻¹. Her asthma was of severe type and over the years 1976-1989 she was on chronic corticotherapy at a dose of 25 mg·day⁻¹.

In this patient, followed by us over the last 15 yrs, the patient entered a 5 month baseline period during which she recorded peak expiratory flows (PEF) twice a day. Her medication was standardized at inhaled beclomethasone 1,600 μg·day⁻¹, aminophylline 1,050 mg·day⁻¹, fenoterol 1,600 μg·day⁻¹ and oral prednisone 25 mg·day⁻¹. An attempt to gradually reduce prednisone to 15 mg·day⁻¹, keeping doses of other drugs constant, was unsuccessful. Cyclosporin was then started, and 5 wks after its introduction a careful attempt to reduce prednisone by 1-2 mg·wk⁻¹ was begun. Following 11 months' treatment with low-dose cyclosporin (whole-blood trough levels 70-150 mg·ml⁻¹) the patient's asthma improved and became more stable, spirometric values rose significantly (table 1), whilst the daily dose of prednisone was reduced from 25 mg to 8.5 mg. No side-effects were noticed.

In this patient, followed by us over the last 15 yrs, use of cyclosporin was associated with clear improvement of asthma. Our observations [4] indicate that cyclosporin might be of therapeutic interest in other types of steroid-dependent asthma. The preliminary nature of the present report has to be stressed. We have not observed any side-effects of cyclosporin treatment, possibly because the drug was given at a low-dose. Cyclosporin side-effects are, however, of concern and should be kept in mind in patients with bronchial asthma possibly subjected to cyclosporin treatment in the future.

References


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Employ de la cyclosporine dans un cas grave d'asthme induit par l'Aspirine. E. Nizankowska, R. Dworski, A. Szczeklik. RÉSUMÉ: La cyclosporine interfère sur la synthèse des lymphokines. Nous avons utilisé la cyclosporine pour traiter une femme de 42 ans, dont l'asthme grave était dû à une intolérance à l'Aspirine. La médication a comporté l'inhalation de beclométhasone à raison de 1,600 μg·jour⁻¹ et la prise orale de prednisone à raison de 25 mg·jour⁻¹. Après la mise en oeuvre d'une médication comportant de petites doses de cyclosporine (ceux dans le sang complet entre 70 et 150 mg·ml⁻¹), l'asthme s'est amélioré progressivement, et la dose de prednisone orale a été ramenée à 8.5 mg·jour⁻¹.