Short term coseasonal sublingual immunotherapy reduced the development of asthma in children with hay fever


Measure: In children with allergic rhinoconjunctivitis (hay fever), does short term coseasonal sublingual immunotherapy reduce the development of asthma and seasonal hay fever symptoms?

METHODS

Design: randomised controlled trial.

Allocation: (unconcealed)*

Blinding: blinded (patients, healthcare providers, and data collectors)*.

Follow up period: 3 years.

Setting: 6 paediatric allergy centres in North Central Italy (Emilia, Tuscany, and Lazio).

Patients: 113 children 4–16 years of age (mean age 8 y) with hay fever caused by grass pollen and clinical monosensitisation to grass pollen. Exclusion criteria: asthma, clinical sensitisation to other inhalant allergens, and previous immunotherapy for grass pollen allergy.

Intervention: sublingual immunotherapy with an extract of mixed grass pollens given in a short term coseasonal protocol (4 mo each y during pollen season) plus standard symptomatic treatment (active treatment group, n = 54) or standard symptomatic treatment only (control group, n = 59).

Outcomes: development or recurrence of asthma and hay fever symptoms: for the nose (itching, runniness, blockage, and sneezing), eyes (itching, lacrimation, and redness), and asthma (>3 episodes of wheezing breathing difficulty, cough, or both, >1 wk apart).

Patient follow up: 97 (86%) children (70% boys).

*Information provided by author.

MAIN RESULTS

At 3 years, the rate of development of asthma was lower in children in the active treatment group than in the control group (table). Differences in other outcomes were found only after the second year (ie, children in the active treatment group had lower subjective evaluation scores for symptoms [p = 0.03], drugs [p = 0.009], and symptoms plus drugs [p = 0.001]).

CONCLUSION

In children with hay fever, short term coseasonal sublingual immunotherapy reduced the development of seasonal asthma and improved hay fever symptoms.

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