

Asthma in Light of Patient Documents. A Factor Analytic Study

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Abstract

Introduction: The aims of the study were to elucidate the disease spectrum of asthma in clinical practice, the interplay of symptoms, tests and background factors in the diagnosis of asthma and the applicability of exploratory factor analysis in analysing patient documents. Materials and Methods: The data in this retrospective cross-sectional study included 195 suspect asthma patients from a systematic sample of 2877 outpatients examined in the Pulmonary Clinic of the Tampere University Hospital from 1983 to 1993 and some statistics on the place of residence and place of birth of the patients. The materials on 73 variables were reduced to 9 factors explaining 40% of the variance in a rotated principal component analysis. Conclusions: The factorial description of the patient documents revealed four types of asthma: "allergic", "seasonal", "nasal" and "obstructive" asthma. These phenotypes became more dominant in this order with increasing age. Skin prick reactions to pollen diminished, whereas reactions to epithelia and house dust mite increased from allergic to obstructive asthma. Some slight differences in the patient characteristics were also found with respect to place of residence and place of birth. The use of factor analysis in clinical practice and organisation was demonstrated.

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