Examining the coexistence of attention deficit hyperactivity disorder and allergic diseases in patients aged 6 to 15 who referred to the psychiatric clinic of Ardabil University of Medical Sciences in 2022

Abstract

Background: Recent evidence has shown the relationship between attention deficit hyperactivity disorder (ADHD) and allergic diseases, but most studies have focused on respiratory allergies and the relationship between ADHD subtypes and allergic diseases has been less investigated.

Aim: To evaluate the coexistence of attention deficit hyperactivity disorder and allergic diseases in children aged 6 to 15.

Materials and methods: In this descriptive and analytical cross-sectional study, 196 children diagnosed with ADHD in the psychiatric clinic of Ardabil University of Medical Sciences in 2022-23 were included in the study by explaining the necessary conditions and obtaining consent. ADHD was assessed by the Connors parents' questionnaire and allergic diseases were assessed by the ISAAC questionnaire and medical history.

Results: The mean age of the patients was 10.5±2.5 years and 82 patients (41.8%) were male and 114 patients (58.2%) were female. The type of ADHD in 136 patients (69.4%) was combined, in 40 patients (20.4%) was inattentive, and in 20 patients (10.2%) was hyperactive-impulsive. The coexistence rate of ADHD with asthma was 28.1%, with allergic rhinitis was 36.2%, with eczema was 14.3%, with urticaria was 9.2%, and with food allergy was 11.7%. ADHD subtype had a significant relationship with gender, asthma, allergic rhinitis, eczema, and food allergy ($P<0.001$).

Conclusion: The results of the present study showed a high comorbidity of ADHD with allergic diseases (asthma, allergic rhinitis, eczema, urticaria, and food allergy) in children aged 6 to 15 years. More girls had inattentive subtype, while more boys had hyperactive-impulsive subtype. The frequency of asthma and food allergy was higher in hyperactive-impulsive subtype, while the frequency of allergic rhinitis and eczema was higher in inattentive subtype.

Keywords: Attention deficit hyperactivity disorder, allergic disorders, comorbidity.