

Original Article:

Zheng Z, Zhang L and Zhu T, et al. Association between Asthma and Autism Spectrum Disorder: A Meta-Analysis. PLoS One. 2016 Jun 3;11(6).

Autism is a neurodevelopmental disorder characterized by impairments in social functioning and restrictive behavior patterns. Prior evidence has suggested that immune or inflammatory conditions are commonly found in patients with autism, but there is conflicting data as to whether asthma is more common in patients with autism. Consequently, the goal of this study was to systematically evaluate whether there is an association between asthma and autism.

The authors searched PubMed, Embase and Cochrane library to identify studies in English that evaluated the association between asthma and autism. To be included, the studies also had to be case-control or cohort studies and provide raw data or odds ratios. Reviews, case reports, animal studies and commentaries were excluded.

Ten studies met criteria and included >175,000 participants with 8809 subjects with autism. Evaluation of odds ratios were used to evaluate whether there was an association between asthma and autism in these studies. The main finding of the meta-analysis was that no association between asthma and autism was identified.

There are several limitations to this study including reliance of self-reporting of asthma and autism, heterogeneity of the studies, possible confounding factors and lack of prospective studies. However, this meta-analysis can help asthma educations use evidence-based data to answer the question about whether autism is associated with asthma.