

Original article: Kwon HJ, Bang DW, Kim EN, et al. Asthma as a risk factor for zoster in adults: A population-based case-control study. *J Allergy Clin Immunol.* 2015 Dec 11.

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Review:

Herpes zoster is a common condition that has significant morbidity and affects about 30% of adults¹. Zoster is caused by the reactivation of latent Varicella-Zoster Virus in the body. Why this occurs in some individuals is not completely understood. Only a minority of those with zoster have an identified condition or medication that significantly suppresses their immune function. It was previously demonstrated that there is an increased risk of zoster in children with asthma². The goal of this study was to evaluate whether asthma is associated with an increased risk of zoster in adults.

The study was a population based case-control study of patients living in Olmsted County, Minnesota, who were registered in the Rochester Epidemiology Project (REP). All potential zoster cases in those ≥ 50 years old were identified by the medical record during a defined time frame and two matched control subjects were also randomly selected. A total of 371 zoster cases and 742 controls were included in the study. Numerous other sociodemographic and clinical characteristics were analyzed for both groups.

After controlling for covariables and cofounders, there was an association between history of asthma and risk of zoster (adjusted OR 1.70; 95% CI, 1.20-2.42; P=0.003). A limitation of the study is the homogeneity of the subjects as most were White/non-Hispanic females. The study found that asthma is a risk factor for herpes zoster in adults. Interestingly, Ernst et al previously demonstrated that inhaled corticosteroid use did not increase the risk for zoster, so other disease-related factors may be contributing³. Asthma educators are often questioned about vaccinations. The asthma educator should encourage adult patients ≥ 50 years old with asthma to discuss the risks and benefits of zoster vaccination with their health care provider.

References:

¹ B.P. Yawn, P. Saddier, P.C. Wollan, et al. A population-based study of the incidence and complication rates of herpes zoster before zoster vaccine introduction. *Mayo Clin Proc*, 82 (2007), pp. 1341–1349.

² B.S. Kim, S. Mehra, B. Yawn, et al. Increased risk of herpes zoster in children with asthma: a population-based case-control study. *J Pediatr*, 163 (2013), pp. 816–821.

³ P. Ernst, S. Dell'Aniello, Y. Mikaeloff, S. Suissa. Risk of herpes zoster in patients prescribed inhaled corticosteroids: a cohort study. *BMC Pulm Med*, 11 (2011), p. 59.