ESOPHAGUS

Seasonal variation in diagnosis of eosinophilic esophagitis

The pathogenesis of eosinophilic esophagitis (EE) is not completely understood, although there are data supporting an association with some allergies. Fouad Moawad and colleagues have now shown a correlation between the diagnosis of EE and seasonal pollen counts, which suggests a role for aeroallergens in the pathogenesis of EE.

A retrospective review identified 127 adults who were diagnosed with EE at the Walter Reed Army Medical Center,

Washington DC, USA, between January 2006 and November 2008. Patients were classified according to the season in which they had the upper endoscopy evaluation. Daily pollen counts for grass, trees and weeds were obtained from a certified counting station in the Washington DC area for the same period and these were collated into the pollen counts for each season.

The highest percentage of diagnoses of EE were made in the spring (33%; $P=0.022$) and the lowest percentage of diagnoses were made in the winter (16%; $P=0.01$). There were no significant differences in the observed number of diagnoses of EE made in the summer or autumn compared with the number expected if the diagnoses had been evenly distributed throughout the year.

77% of the total annual grass pollen count occurs between April and the end of June in Washington DC. “We noted an increase in diagnoses of EE in the spring, when the grass and tree pollen counts are at their peak. The season with the second

highest number of diagnoses was the autumn, when the weed pollen count is at its peak”, comments Moawad.

There was a significant association between the season when the diagnosis of EE was made and the mean grass pollen count (Spearman rank correlation coefficient = 1; $P < 0.01$). There was also a trend towards an association between the season in which the diagnosis was made and the mean tree and weed pollen counts, but this was not significant.

The finding that the seasonal variation in the diagnosis of EE correlates with peak pollen counts suggests a role for aeroallergens in the etiology of this disorder. Prospective studies with allergen sensitization testing might help to elucidate the relationship between aeroallergens and EE.

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