High levels of specific immunoglobulin E (sIgE) reactivity to recombinant *Hevea brasiliensis* (rHev b) can diagnose natural rubber latex (NRL) allergy, according to a study published online March 4 in *Allergy*. Olivier Vandenplas, M.D., from the Université Catholique de Louvain in Belgium, and colleagues assessed sIgE levels to NRL extract and 12 recombinant NRL allergen components in 82 subjects with occupational asthma ascertained by a positive specific inhalation challenge (SIC) with NRL gloves. Levels were also examined for 25 symptomatic subjects with a negative challenge.

The researchers found that a NRL-sIgE level ≥0.35 kU/L had sensitivity, specificity, and positive and negative predictive values of 94, 48, 86, and 71 percent, respectively, compared to the result of SICs. When increasing the cut-off value to 5.41 kU/L, the positive predictive value increased above 95 percent. Compared to those with negative SIC, participants with a positive SIC showed a significantly higher rate of sIgE reactivity to rHev b 5, 6.01, 6.02, and 11. The positive predictive value was above 95 percent, with sensitivity of 76 percent and diagnostic efficiency of 0.67 on Youden index, for a sIgE sum score against rHev b 5 plus 6.01/6.02 ≥1.46 kU/L, compared with a NRL-sIgE ≥5.41 kU/L (49 percent and 0.41, respectively).

"High levels of sIgE against rHev b 5 combined with rHev b 6.01 or 6.02 are the most efficient predictors of a bronchial response to NRL," the authors write.

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