

Inhaled Corticosteroids Might Provoke Diabetes

In an observational study, diabetes was more likely to develop in current steroid users. Randomized trials have not shown a connection between use of inhaled corticosteroids (ICS) and risk for diabetes; however, these studies might have been underpowered to detect this association. In a new study, researchers evaluated risk for developing diabetes among nearly 400,000 residents of Quebec, Canada, who did not have diabetes when they began ICS treatment between 1990 and 2005.

During a mean follow-up of 5.5 years, 30,000 people initiated treatment for diabetes. After adjustment for multiple factors, including respiratory disease severity and comorbid conditions, incidence of diabetes was 34% higher among people who were currently receiving ICS than among those who were not. A dose–response association also was detected (rate ratios, 1.18 for low-dose ICS; 1.64 for high-dose ICS). Use of ICS also was associated with 34% higher risk for insulin therapy.

Comment: This population-based observational study showed a significantly higher incidence of diabetes and more-rapid diabetes progression (defined as initiating insulin therapy) among individuals who received ICS. Current guidelines recommend close monitoring of patients who receive high-dose ICS for development of osteoporosis or cataracts; this study suggests that diabetes could be added to this list. The findings also remind us to follow asthma and chronic obstructive pulmonary disease guidelines on when to initiate inhaled corticosteroid therapy and on using the lowest effective dose.

— **Jamaluddin Mooloo, MD, MPH**

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