Global prevalence of diabetic retinopathy about 7 percent in pediatric type 2 diabetes patients

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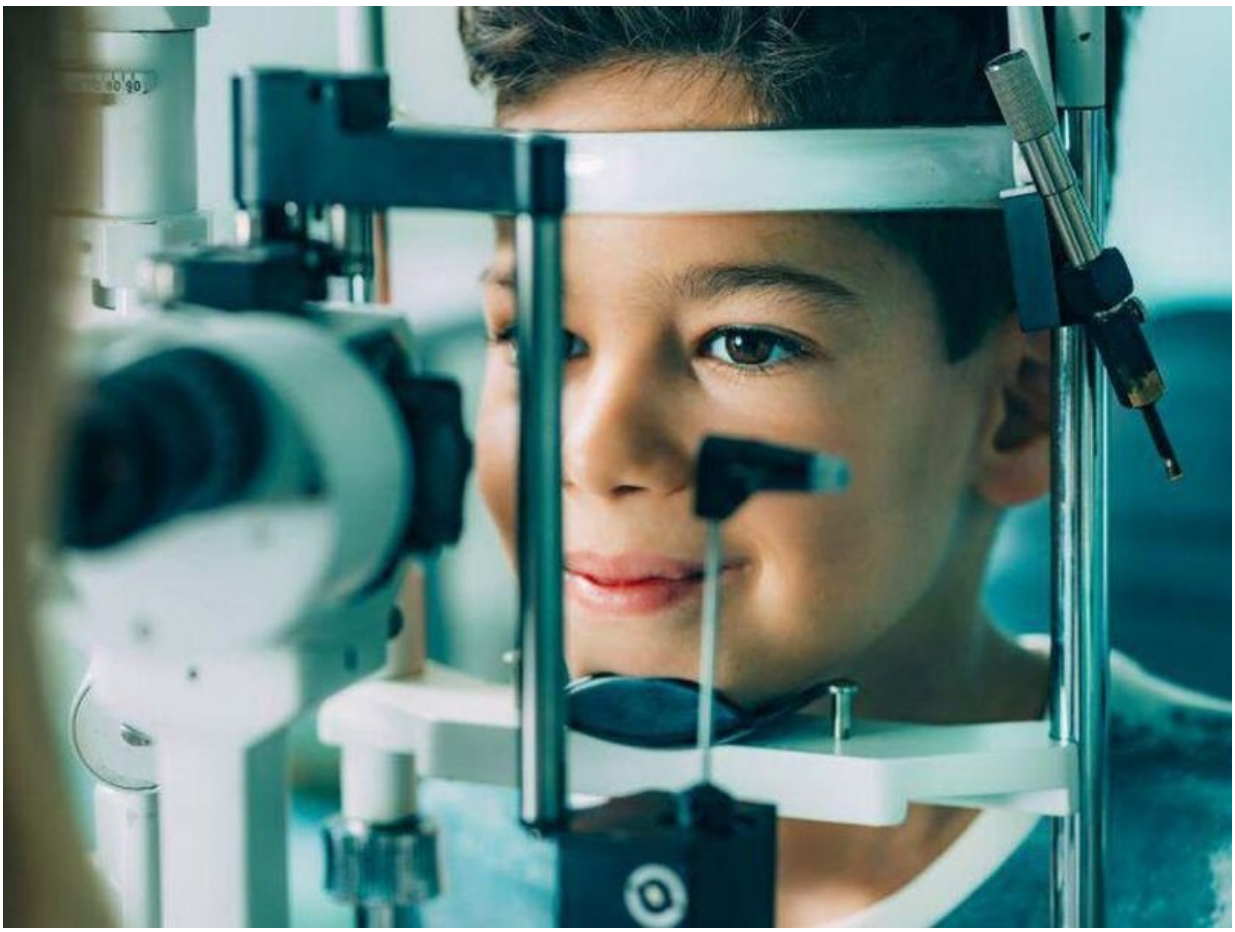

The prevalence of diabetic retinopathy (DR) is 6.99 percent in pediatric type 2 diabetes (T2D) and increases with time since diagnosis, according to a meta-analysis published online March 17 in *JAMA Network Open*.

Milena Cioana, from McMaster University in Hamilton, Ontario, Canada, and colleagues estimated the global prevalence of DR in pediatric T2D in a systematic review and meta-analysis. The pooled analysis included 27 studies, with 5,924 unique patients.

The researchers found that the global prevalence of DR was 6.99 percent in pediatric T2D. For detecting retinopathy, fundoscopy was less sensitive than seven-field stereoscopic fundus photography (0.47 versus 13.55 percent). Over time, there was an increase seen in the prevalence of DR, which was 1.11, 9.04, and 28.14 percent at less than 2.5, 2.5 to 5.0, and more than five years after T2D diagnosis, respectively. With age, there was an increase observed in the prevalence of DR and no differences were seen based on sex, race, or obesity.

"The findings of this systematic review and meta-analysis suggest that the retinal microvasculature is an early target of T2D in children and that the risk of DR continues to increase over time," the authors write. "Mechanistic insights into the pathogenesis of DR in children with T2D remain limited, and this area warrants prioritized investigation."

More information: Milena Cioana et al, Global Prevalence of Diabetic Retinopathy in Pediatric Type 2 Diabetes, *JAMA Network Open* (2023). DOI: 10.1001/jamanetworkopen.2023.1887