A new study in *CMAJ* (Canadian Medical Association Journal) found no increased risk of autoimmune disorders in girls who received quadrivalent human papillomavirus (HPV4) vaccination, adding to the body of evidence for the safety of the vaccine.

Human papillomavirus is the most common sexually transmitted disease worldwide, affecting 50%-75% of sexually active people. The HPV4 vaccine is effective at protecting against 90% of the strains that cause cervical and anal cancer. Despite studies showing safety of the vaccine, there have been concerns about a possible link to autoimmune disorders.

"Despite demonstrated effectiveness in real-world settings, concerns continue to persist regarding the safety of the HPV4 vaccine. In light of these concerns, we wanted to study the HPV4 vaccination since it was being offered free to all grade 8 girls in Ontario through school-based clinics," says Dr. Jeffrey Kwong, a study author and a senior scientist at the Institute for Clinical Evaluative Sciences (ICES) and at Public Health Ontario.

To determine whether the HPV4 vaccination triggered autoimmune conditions such lupus, rheumatoid arthritis, type 1 diabetes and multiple sclerosis, researchers looked at data on 290 939 girls aged 12 to 17 years in Ontario who were eligible for vaccination between 2007 and 2013. Of the total 180 819 girls who received the HPV4 (Gardasil and Merck) vaccination in school-based clinics, there were 681 diagnosed cases of autoimmune disorders between one week and two months after vaccination. This rate is consistent with the general rate of diagnosed cases in this age group.

"These findings add to the body of evidence on the safety of the HPV4 vaccine and should reassure parents and health care providers," says Dr. Linda Lévesque, Leslie Dan Faculty of Pharmacy, University of Toronto, Toronto, Ontario.


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