Shingles vaccine lowers the risk of heart disease for up to eight years

06 May 2025

Topic(s): *Risk Factors and Prevention;*

People who are given a vaccine for shingles have a 23% lower risk of cardiovascular events, including stroke, heart failure, and coronary heart disease, according to a study of more than a million people published in the European Heart Journal [1] today (Tuesday).

The protective effect of the vaccine lasts for up to eight years and is particularly pronounced for men, people under the age of 60 and those with unhealthy lifestyles, such as smoking, drinking alcohol and being inactive.

The study was led by Professor Dong Keon Yon from the Kyung Hee University College of Medicine, Seoul, South Korea. He said: "Shingles causes a painful rash and can lead to serious complications, especially in older adults and those with weak immune systems. Previous research shows that, without vaccination, about 30% of people may develop shingles in their lifetime.

"In addition to the rash, shingles has been linked to a higher risk of heart problems, so we wanted to find out if getting vaccinated could lower this risk."

The study included 1,271,922 people aged 50 or older living in South Korea. Researchers gathered data, from 2012 onwards, on whether people received a shingle vaccine and combined this with data on their cardiovascular health and data on other factors that can influence health, such as age, sex, wealth and lifestyle.

The vaccine was a live zoster vaccine, meaning it contained a weakened form of the varicella zoster virus that causes shingles. In many countries, this type of vaccine is now being replaced with a non-live, recombinant vaccine, meaning it contains a protein from the varicella zoster virus.

The study showed that among people who received the vaccine, there was a 23% lower risk of cardiovascular events overall, with a 26% lower risk of major cardiovascular events (a stroke, heart attack or death from heart disease), a 26% lower risk of heart failure and a 22% lower risk of coronary heart disease.

The protective effect was strongest in the two to three years after the shingles vaccine was given, but researchers found that the protection lasted for up to eight years.

Professor Yon said: "Our study suggests that the shingles vaccine may help lower the risk of heart disease, even in people without known risk factors. This means that vaccination could offer health benefits beyond preventing shingles.

"There are several reasons why the shingles vaccine may help reduce heart disease. A shingles infection can cause blood vessel damage, inflammation and clot formation that can lead to heart disease. By preventing shingles, vaccination may lower these risks. Our study found stronger benefits in younger people, probably due to a better immune response, and in men, possibly due to differences in vaccine effectiveness.

"This is one of the largest and most comprehensive studies following a healthy general population over a period of up to 12 years. For the first time, this has allowed us to examine the association between shingles vaccination and 18 different types of cardiovascular disease. We were able to account for various other health conditions, lifestyle factors and socioeconomic status, making our findings more robust.

"However, as this study is based on an Asian cohort, the results may not apply to all populations. Since the live zoster vaccine is not suitable for everyone, more research on the recombinant vaccine is needed. While we conducted rigorous analysis, this study does not establish a direct causal relationship, so potential bias from other underlying factors should be considered."

Professor Yon and his colleagues also plan to study the impact of the recombinant vaccine to see if it has similar benefits for reducing heart disease.

ENDS

Notes to editor

ESC Press Office
Tel: +33 (0)6 61 40 1884
Email: press@escardio.org
Follow us on Twitter @ESCardioNews

Funding: the National Research Foundation of Korea (NRF)

Disclosures: none

References

[1] "Live zoster vaccination and cardiovascular outcomes: a nationwide, South Korean study", by Sooji Lee et al, European Heart Journal. doi: https://doi.org/10.1093/eurheartj/ehaf230 https://academic.oup.com/eurheartj/article-lookup/doi/10.1093/eurheartj/ehaf230

About the European Society of Cardiology

The ESC brings together health care professionals from more than 150 countries, working to advance cardiovascular medicine and help people to live longer, healthier lives.

The European Heart Journal is the flagship journal of the European Society of Cardiology. It is published on behalf of the ESC by Oxford Journals, a division of Oxford University Press.