Medical Xpress

Shingles vaccine safely prevents outbreaks among stem cell transplant patients

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A newer form of shingles vaccine reduced outbreaks of the painful rash among patients who were transplanted with their own stem cells, according to a study led by a Duke Health researcher and published today in *JAMA*.

The vaccine appears to offer protection from one of the most common and painful side effects of cell therapy and shows promise for patients with immune-compromising conditions.

Using a non-live form of the herpes zoster virus that causes shingles, the researchers tested vaccination among people whose immune systems are wiped out during hematopoietic stem cell transplantation (HSCT). HSCT patients are especially prone to bouts of shingles, which is caused by reactivation of the latent varicella-zoster virus that also causes chicken pox.

The outbreak results in red, painful, burning blisters and rash, typically on one side of the body and often occurs in older adults or people with weakened immune systems. In some cases, shingles causes excruciating and long-lasting neurologic pain.

"This trial is important because it demonstrates that the vaccine works in severely immunosuppressed patients," said oncologist Keith Sullivan, M.D., the James B. Wyngaarden Professor of Medicine at Duke. "That suggests it could also work with others whose immune systems are not normal—including patients with HIV, breast cancer and auto-immune conditions."

Sullivan and colleagues at 167 centers in 28 countries enrolled more than 1,800 transplant recipients. Half were randomly assigned to received two vaccine doses shortly after transplant and half received placebo.

At a median follow-up of 21 months, the vaccine group had 30 cases of shingles per 1,000 person-years compared to 94 cases per 1,000 person-years among patients receiving placebo injections.

The vaccine also apparently reduced the incidence of painful post-therapeutic neuralgia, shingles-related hospitalizations and complications

and duration of pain.

"Among HSCT patients, a shingles outbreak is often more feared than the transplant itself, and I've had patients tell me they'd undergo two transplants before facing another episode of shingles," Sullivan said. "It's hugely gratifying, and a welcome surprise, to see such a strong immune response among this study population."

Provided by Duke University Medical Center

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