

New HPV vaccine under study

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Dr. Daron Faris, family medicine physician and director of the MCG Gynecologic Cancer Prevention Center, is studying a new vaccine for the nine of the most harmful strains of human papillomavirus. The new vaccine, called nine-valent, is being compared with Gardasil, a quadrivalent vaccine already on the market that works against the two most deadly HPV types. Credit: Medical College of Georgia

A new vaccine against nine of the most harmful strains of human papillomavirus is under study at the Medical College of Georgia.

The vaccine, called nine-valent, is being compared with Gardasil, a quadrivalent vaccine already on the market that works against the two most deadly HPV types.

“We’re testing Gardasil against three different doses of the investigational vaccine,” says Dr. Daron Ferris, family medicine physician and director of the MCG Gynecologic Cancer Prevention Center. “This study will determine the best dose of the new vaccine and whether it is safe, well-tolerated and effective in preventing HPV infection and disease compared with what’s already out there.”

Gardasil, approved by the U.S. Food and Drug Administration in 2006, protects against HPV types 16 and 18, which cause about 70 percent of HPV-related cervical cancer cases, and types 6 and 11, which cause about 90 percent of genital wart cases.

The new drug could prevent infection from those four types and five other cancer-causing types, Dr. Ferris says.

“Women infected with those five types of HPV also have an increased risk of developing severe precancerous cervical disease and cervical cancer,” he says. “While genital warts go away on their own in most cases, cervical precancerous lesions are less likely to disappear without treatment.”

HPV is incurable and Gardasil is the only preventive treatment on the market, Dr. Ferris says. Treatments range from topical creams to surgical removal of precancerous lesions.

Like Gardasil, the new vaccine contains proteins that form virus-like particles that assemble into a hollow sphere resembling HPV’s protective coating.

“Since the sphere lacks the actual viral DNA on the inside, it cannot cause HPV,” Dr. Ferris says. “But the body is tricked into making antibodies to protect against the real thing.”

In the previous Gardasil studies, half of the subjects were given Gardasil while the other half got a placebo (saline water). In this study, the placebo is Gardasil, so both groups get a vaccine.

“Either they’ll be vaccinated against four or nine types of HPV,” Dr. Ferris says. “It’s a win-win situation.”

The initial target group for the new vaccine will be females age 9-26 because most HPV infections occur among 15- to 25-year-olds.

Study participants will have five to 11 office visits over seven months to three-and-a-half years that will include physical and pelvic exams; Pap smears to detect cancerous or precancerous changes of the cervix; and HPV testing.

Source: Medical College of Georgia

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