New Smallpox Vaccine Immunogenic and Safe

BY MARY ANN MOON

The third-generation smallpox vaccine LC16m8 was found to be as immunogenic as existing smallpox vaccines but appeared to be safer in a study of more than 3,000 Japanese adults.

The live, attenuated, tissue-cultured LC16m8 vaccine proved to be immunogenic in adults who had never received any smallpox vaccination, and it produced an adequate booster response in those who had been vaccinated previously.

As important, the LC16m8 vaccine produced minimal local reactions and no severe adverse events, said Dr. Tomoya Saito of the department of tropical medicine and parasitology, Keio University, Tokyo, and associates. "Developing a vaccine that is safer than first-generation vaccines yet highly immunogenic is crucial to constructing a prevention plan in the event of a bioterrorist attack," the investigators noted.

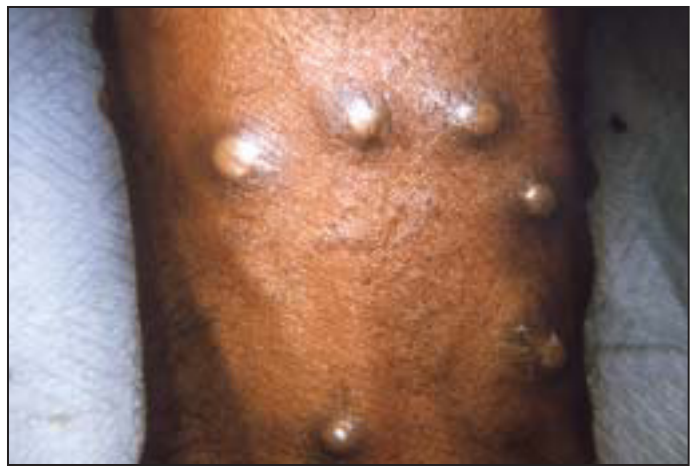
The investigators assessed the LC16m8 vaccine in healthy personnel in the Japan Self-Defense Forces inoculated in 2002-2005. Nearly 99% were men, and all were Asian. A total of 1,529 had never been vaccinated, and 1,692 had previously been vaccinated against smallpox (JAMA 2009;301:1025-33).

The proportion of "takes"—the visible skin reactions to a single intraepidermal scarification—was comparable to that seen with other vaccines, as were serum levels of neutralizing antibodies. The seroconversion rate was over 90% in those who were never vaccinated and 60% in those who were previously vaccinated, Dr. Saito and colleagues wrote.

There were no severe adverse events such as autoinoculation/contact inoculation, eczema vaccinatum, progressive vaccinia, generalized vaccinia, encephalitis, or the myopericarditis that has been "a major concern" in the U.S. smallpox vaccination program.

The researchers noted that while the total sample size in the study limited their ability to "conclusively confirm the absence of severe adverse events," their results support the conclusion that LC16m8 "causes minimal local manifestations and systemic adverse effects."

The study findings suggest that LC16m8 is "a viable alternative." ■



CDC/DR. JOHN NOBLE JR.

A safe vaccine "is crucial to constructing a prevention plan in the event of a bioterrorist attack" involving smallpox (maculopapular smallpox lesions in the pustular phase shown at left).

Medicare Changes, E-Prescribing Info

A guide from the Centers for Medicare and Medicaid Services explains the e-prescribing incentive program and how to choose a qualified e-prescribing system. By using e-prescribing, physicians can save time, improve patient safety and quality of care, and earn a 2% incentive from Medicare. To access the guide, visit www.cms.hhs.gov/partnerships/downloads/11399.pdf.

The CMS has also posted three fact sheets on changes that need to be reported to Medicare by enrolled physicians and group practices. Reportable changes include a change of business structure, legal business name, tax identification number, and practice location and status. To access the downloadable fact sheets, visit www.cms.hhs.gov/medicareprovidersupenroll. ■