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Primary prevention of uterine cervix cancer: focus on vaccine history and current strategy

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Primary prevention of uterine cervix cancer spans the gamut of human papillomavirus (HPV) vaccine development, dietary adjustment, chemoprevention, and risk reduction. Lifestyle and social behaviors impact on risk for cervical cancer and will be discussed in great detail by Tewari and DiSaia in the future. Before examining the growing body of molecular evidence, animal studies, and phase I clinical trials that suggest that a virus-based vaccine for cervical cancer may soon become a reality, we must reflect on what has gone before in our vaccine-based battle with viral disease.

The conquest of smallpox

Variolation: the genius of China

Smallpox has been called the great scourge of mankind. Over the ages, it has crippled, disfigured, or killed one fourth of all humanity (Fig. 1). Just in the twentieth century alone, nearly 200 million deaths were attributed to this disease. Every corner of the world has felt its grip and known its devastation. Physical anthropologists have speculated that the disease first appeared around 10,000 Before the common era (BCE) among the agricultural settlements in northeastern Africa. Its scars can be found on the mummy of the Egyptian pharaoh Ramses V, who died in 1157 BCE and on other Eighteenth Dynasty mummies [1]. The first known smallpox epidemic was recorded in 1350 BCE, when Egyptian prisoners unwittingly spread the disease to the Hittites. Even the Hittite King Suppiluliumus I and his heir were claimed as victims by the virus. Egyptian merchants eventually brought the smallpox virus to India.

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