HUMAN PAPILLOMAVIRUS VACCINE AND CERVICAL CANCER PREVENTION

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Cervical cancer (cancer of the cervix uteri) is a dreaded killer disease of women and is more common in the developing countries. It is the second most common female malignancy world-wide.[1] In recent years there has been an emergence of the understanding of the aetiological role of Human Papillomavirus (HPV) infection in the development of cervical cancer. Screening for and detection of cervical cancer is, fortunately, more feasible than with other types of cancer and now the HPV vaccine has been introduced for cervical cancer prevention.

HPVs are mostly epitheliotropic. The anogenital HPVs have been classified into 3 oncogenicrisk groups (low, intermediate and high-risk)[2] based on the association between specific types of HPV and specific types of lesions (which may range from condylomata acuminata to invasive cervical carcinoma). HPV types 6 and 11 fall in the low-risk group and types 16 and 18 in the high-risk group. The causal role of persistent HPV infections in the development of cervical cancer and its precursors has been proved beyond reasonable doubt.[3]

Prevention of HPV infections is thus a logical way of preventing cervical cancer. A quadrivalent vaccine (against HPV types 6, 11, 16 and 18) and a bivalent vaccine (against HPV types 16 and 18) are now available, the former having been approved for use in females between the ages of 9 and 26 years and the latter for females between the ages of 10 and 45 years. For the quadrivalent vaccine the dosage schedule is 3 intramuscular doses, one each at 0, 2 and 6 months. For the bivalent vaccine the schedule is 3 intramuscular doses, one each at 0, 1 and 6 months.

With proper utilization of the current screening and diagnostic tools for cervical cancer and with proper application of preventive strategies for HPV infection and with proper management of preinvasive and early disease we should be able to deal with the burden of cervical cancer with greater efficiency.

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