Prevention of cervical cancer – how long before we get it right?

Cervical cancer remains one of South Africa's biggest women's health problems, affecting one out of 41 South African women.[1] It is estimated that this disease kills approximately 8 women in the country every day, and World Health Organization projections are that this number will increase to about 12 deaths per day in 2025.[2] These alarming statistics should be seen in the context of cervical cancer as a preventable disease.

Secondary prevention of this disease by means of cervical cytology has been available for more than 5 decades, and it has significantly reduced the prevalence of the disease in countries where formal population-based screening has been implemented.[3] Although the national Department of Health has a screening policy, it has not been formally implemented countrywide, and it is estimated that screening coverage, which is mainly done on an opportunistic basis, is as low as 13%.[2]

In any country, having a successful and optimally functioning population-based screening programme for cervical cancer requires significant resources and effort. Infrastructure requirements include appropriately equipped and staffed facilities for both diagnosis and treatment. The population also needs to be informed of the necessity for screening. Many women in South Africa are minimally literate and have very little knowledge about cervical cancer and the tests to screen for it.[4] Adequate communication channels to inform women about abnormal test results and timing of follow-up screening tests are also crucial to ensure proper functioning of a formal population-based screening programme. The majority of South African women are not easily contactable or accessible by the postal services to receive test results. Effective implementation of formal population-based screening in this country is a long way off.

The HIV epidemic in South Africa has had a devastating effect on cervical cancer, and HIV-infected women have been seriously disadvantaged by the lack of a formally implemented screening strategy. HIV-positive patients have an increased risk of persistent human papillomavirus (HPV) infection, premalignant lesions and cervical cancer compared with uninfected women,[5,6] with local data suggesting that cervical cancer occurs up to 10 years earlier in HIV-infected women.[6] Furthermore, cervical cancer is at a more advanced stage when diagnosed, has more treatment-related complications and more recurrences, and is more likely to cause death in HIV-infected women compared with women who are not HIV-infected.[7] As a direct result of the current screening policy, HIV-infected women who regularly visit clinics providing antiretroviral medication are not routinely screened for cervical disease despite already being in the healthcare system.

Persistent infection with certain high-risk types of HPV is the underlying cause of cervical cancer.[8] There are more than 40 mucosal HPV types that can infect the lower genital tract in human beings. Approximately 15 of these types are associated with carcinogenesis. HPV 16 and 18 are the two high-risk viruses that are responsible for approximately 70% of all cervical cancers worldwide. HPV 16 and 18 are also responsible for the vast majority of cervical cancers in Africa, as well as South Africa.[9]

A vaccine against cervical cancer is the most exciting recent development in cervical cancer prevention. There are currently two vaccines available, offering high levels of protection against persistent infection with HPV 16 and 18. Both vaccines are available in South Africa. It is now possible to offer primary prevention by vaccinating South African girls to offer them some protection against developing cervical cancer in later life.

The important issues still to address include who and when to vaccinate, and what strategy should be followed to ensure maximum vaccine coverage. HPV vaccines are most effective if administered to individuals who have not previously been exposed to HPV. As HPV is sexually transmitted, the target population on which to focus should be females who have not initiated sexual activity. Most guidelines recommend vaccination of girls from age 9 years and older, with 'catch-up' vaccination to include young women up to 26 years of age at the initiation of an immunisation programme.[10]

Girls in the age group 9 - 12 years are still at primary school. Vaccinating these schoolgirls is far less complicated than implementing a secondary cervical cancer screening programme. Furthermore, vaccination of schoolgirls could also provide an opportunity to educate and screen adult female family members.

In the absence of a properly implemented population-based cervical cancer screening programme, we cannot afford to drag our feet any longer with regard to implementing a primary prevention programme in South Africa. Cervical cancer vaccination has been shown to be cost-effective. It is feasible to implement, and it must be implemented as soon as possible. The country is in urgent need of a well-thought-out and cleverly implemented strategy in this regard. New screening strategies will need to be developed for cervical cancer screening in populations where primary prevention of cervical cancer has been implemented.

We have had many decades to set up a proper population-based screening programme to curtail cervical cancer in South Africa. We have not been able to do it. We now have another opportunity to prevent many thousands of women suffering and dying prematurely due to cervical cancer. Currently we are helplessly looking on as at least 8 women die of the disease every day in this country. It need not happen. Only time will tell to what extent we will be able to grasp this opportunity.

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