

## Cervical Cancer Preventable, Treatable, but Continues to Kill Women

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### Introduction

Cancer cervix continues to be one of the commonest causes of cancer deaths [1]. It is seventh in frequency (4%), amongst all the cancers, third most common cancer (9%) in women. In 2008, an estimated 530,000 new cases of cervical cancer were diagnosed [2-4]. Of all cases of cervical cancer in the world, 85% occur in developing countries, and of all the deaths which occur due to cervical cancer in the world 88% are in developing countries [5-7]. In one of our earlier studies, cervical cancer constituted 29% of all cancers in women and others also report similar figures [8]. Cervical cancer is the second most frequent cause of cancer deaths in women [9]. The incidence and death rates are decreasing steadily, with the numbers of cervical cancer and deaths coming down [10-12]. Frequency inversely relates to the age at first intercourse, early marriage and directly relates to the number of sexual partners [13]. Overall in developed countries, both the incidence and mortality due to cervical cancer have declined by about 40% since early 1970s, and more and more cases of cancer in situ are being diagnosed [14].

Probably 134,420 Indian women were diagnosed to have cervical cancer and 72,825 died due to cervical cancer, because most (85%) of the cases presented in advanced stages. In East African and South Asian countries, it is number one cancer in women as well as number one cause of mortality. Worldwide, cervical cancer causes around 275,000 deaths per year [15].

Many studies reveal that the disease is more common in the with low economic status, possibly due to poor personal and sexual hygiene, nutritional deficiency, lack of health care [16]. Many patients never reach medical centres, because of lack of awareness, poor referral practices and other constraints. Population based studies from developed countries have shown relation to socioeconomic strata, 2-3 fold higher risk of cervical cancer amongst poor women than their affluent counterparts [17-19]. Developed countries have well established screening programs and the women have resources to use the health system. However it could be other factors also, like food habits. In India in two neighboring states where food habits are different, the disease occurrence seems to be different as disease seems to occur more often in young women and grows faster in Andhra Pradesh than Maharashtra. So young women report with advanced cancer compared to women of Maharashtra (Personal observations of many years). Human papilloma virus (HPV) has been definitely linked [20]. However all women who harbour HPV do not get cervical cancer. Researchers believe that those who eat fruits and vegetables can fight HPV and also prevent conversion of cervical cells into cancerous cells, because of presence of antioxidants, carotenoids, flavonoids, and folate [21-23].

Cervical cancer carcinogenesis is known to be a dynamic process, which occurs more in younger women and less in elderly women. Timely diagnosis and accurate staging are essential for appropriate management. Visual methods are useful in diagnosis of cervical pre cancer as well as cancer though their specificity is low [24]. They are useful in knowing local spread of the disease which helps in the clinical staging for planning the therapy for the best outcome. It is known that simple Visual Inspection, with application of acetic acid, or with application of lugol's iodine, Colposcopy, Cervical-Vaginal cytology Cervical and Vaginal biopsy, not only help in diagnosis of suspicious cases but also in assessing extent of the disease, which is essential for planning right therapy including adjuvant therapies [25]. Cervical cancer continues to be one of the leading causes of cancer deaths worldwide. If it is diagnosed as precancer, cancer can be prevented and if cervical cancer is diagnosed in early stage death can be prevented. Screening for prevention or diagnosis of early stage disease and accurate staging are essential for appropriate and timely treatment so that deaths are prevented and quality life is possible, fertility preserved even after having cervical cancer. Cervical cancer is almost completely preventable. Still it continues to kill many women globally.

Therapy may not be able to cure, advanced cancer but control of symptoms and quality life for everyone needs to be attempted. Treatment should slow disease progress and shrink the cancer and control its spread with no or minimum effects on other organs. Many factors come in the way of quality survival, including, distance and transport related problems. Many women with cervical cancer do not get treated properly and the factors include lack of access to the health care system, access to a medical specialists, lack of third-party coverage and lack of the necessary social support to help patients. In addition, patient's fear and mistrust of the health-care system, make situation more complex for complete treatment. In a study it was revealed that patients once told that it was cancer and advanced, though there were treatment options, just disappeared from outpatient or after biopsy or at initiation of the therapy [25]. There are several modalities to prevent cervical cancer, vaccination is the latest. Two types of vaccines are being used for prevention, one quadrivalent and one bivalent [26]. Both vaccines have undergone clinical trials. Controversies remain regarding mandatory vaccination, need for booster doses and cost-effectiveness. It is being believed that it is an effective mode for prevention, however there are many issues, which need to be looked into.

Vaccine therapies currently have no established role in the treatment of cervical cancer except in the settings of a clinical trial.

Cervical cancer needs to be treated in individualized way depending on age of patient, stage of cancer and general health. Conservative modalities as well as extensive surgeries are available options. Chemotherapy improves results of surgical as well as radiation therapy.

Radical hysterectomy is standard surgery for stage I through IIA cervical cancer, but surely is associated with significant early, late complications, sexual, bladder dysfunction, and colorectal motility disorders. While all attempts are being made to prevent cervical cancer, it is also true that the cancer is being diagnosed in young women, so fertility preservation becomes a very important aspect of cervical cancer care.

Effective control and management will almost certainly require multimodality roles. Attempts at prevention, diagnosis at early stage followed by therapy, by suitable means is imperative. Health care professionals must expand their vision for the health needs of women with cervical cancer to have the best of their health, free of cancer with quality life.

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