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ABSTRACT

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ATUL BUDUKH

Of the Indian population that has crossed 1 billion, 72% resides in rural areas. India accounts for a quarter of world cervical cancer burden having 132 000 new cases and 74 000 deaths occurred around 2002 as per the estimation of the International Agency for Research on Cancer, Lyon, France (IARC). Tata Memorial Centre (TMC), Mumbai is one of the premier institutes in India for cancer care and the regional cancer centre for Maharashtra state of India. The TMC has organized and developed community cancer services under its rural cancer extension project in the NGO Nargis Dutt Memorial Cancer Hospital (NDMCH), Barshi, a small town 450 km away from Mumbai. Based on the experience of the studies conducted at NDMCH, this thesis focuses on control of cervical cancer and describes the infrastructure, resources and manpower needed in rural India.

The method of cancer registration was based on active case finding by creating the cancer awareness in the rural population and identification of symptomatic cases. Cervical cancer was the leading cancer site; the incidence was about 6 times that in Finland. In one sub-district of 120 000 female population, health education on cervical cancer was provided by group meetings and film shows in villages. Symptomatic women were motivated for the diagnosis at the detection clinic or at NDMCH. Awareness about the disease in the women was increased due to the effect of health education, 55% cervical cancer cases were detected at early stage of the disease as compared to 30% in the control area. However it was found that those whose disease was detected early did not have the treatment completed. The patient would not consult the doctor until she was unable to work and was bedridden. The several hospital visits before the treatment, transportation problems and financial barriers were factors to not complete the treatment. After seven years of the study we did not find any difference between the mortality of the disease between the two groups. No treatment, incomplete treatment or delay in treatment diluted the intervention effect.

Due to experience in cervical cancer control activity the IARC in collaboration with TMC conducted the world's largest randomized controlled trial of 143 000 women for cervical cancer screening to evaluate the relative efficacy and cost effectiveness of three screening approaches: VIA (visual inspection of cervix after application of 4% acetic acid), cytology and HPV testing. More than 70% women participated in the screening. Participation was high in women who were young, educated, married or belonged to a higher income group. Those who participated reported that their husband encouraged them. The common reason given by non participant women was that they do not feel that such a test was necessary. Fear of the test was another reason reported. The stage Ia cases reported in the range of 39 to 50%. However, women with early stage disease were reluctant for the treatment as they did not feel that disease was severe enough for hospitalization. These women were motivated for the treatment with the help of the village leader. The low income group and widowed women refused treatment.

Based on the experience of the studies conducted at NDMCH, a cervical cancer control plan for rural India was proposed. Regional cancer centers should develop community cancer centres in the town hospitals, in the district hospitals, in the radiotherapy centres and in the centres that are actively involved in cancer atlas project by using the available infrastructure and resources. The method suggested for cervical cancer prevention by community cancer centre consisted of intensive health education and providing easy access to diagnosis and treatment. The cost estimated for one centre for providing the services of 200 000 female population was about US $27 000 per year.

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