Reducing Cervical Cancer in Madagascar: An Educational Campaign and Screening Program Using Visual Inspection with Acetic Acid

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Purpose

This project consisted of two components, a screening program and an educational campaign. The first goal was to establish an affordable, effective, and sustainable screening program for cervical cancer at one of the main hospitals in Antsirabe, Madagascar. The second part of the project was to raise awareness of cervical cancer and of the availability of the screening program via distribution of an educational handout and small-group presentations to women.

Background

Cervical cancer is the second most common cancer for women, and disproportionately affects women from developing countries. Worldwide, 8% of cases occur in developing countries such as Madagascar. The Eastern Africa region has the greatest number of cases and the highest mortality rate of any area in the world.

The progression from early dysplasia to neoplasia can take 10 years or more.9 Because of this it is possible to intervene before invasive cancer develops.10 Visual inspection with acetic acid (VIA) is a method supported by past research as an intervention, especially in developing countries.11,12 Additionally, VIA with immediate treatment is one of the most cost-effective methods of screening available for low-resource areas.13 Research also suggests that in-person presentations given with educational materials can increase use of such screenings.14,15 Therefore, establishing a screening program and increasing awareness about cervical cancer could lower mortality.

In Antsirabe, Madagascar, a pilot screening program was established at Andranomadio Lutheran Hospital (HLA). An educational campaign to raise awareness of the program and of cervical cancer was also carried out at an annual women’s church conference in Ambohitompina, Madagascar, with 5,000 to 8,000 attendees.

Methods

The Screening Program

The screening program was done by visual inspection of the cervix with acetic acid (VIA), which is briefly described below. Initial training was given through instruction manuals from the International Agency for Research on Cancer (IARC) and a visiting American OB/GYN, Dr. David Borge. Women were told about the screening during a visit to the family planning clinic at HLA. For the first 14 days, the screening and treatment for any positive findings were free of charge. The screening itself was offered at a separate clinic at the hospital, with a trained Malagasy nurse assisting or performing the screening. Positives were treated according to hospital protocol, either by chemical cautery with silver nitrate or electrocautery (done by a physician). Other abnormalities were referred to an HLA physician.

How the screening is done:

• During a pelvic exam, apply a 3-5% solution of acetic acid to the cervix.
• Wait for one minute.
• Precancerous lesions should turn opaque white (a positive exam at left).
• Treat positives or refer as necessary.

The Educational Campaign

A handout was produced in Malagasy describing the basics of cervical cancer and the available screenings. During a 2-day women’s church conference, the handout was given out to attendees along with short (3-10 minute) presentations by a trained layperson. Additional handouts were left at HLA with the family planning clinic for distribution.

Results

The Screening Program

During the first 14 days of the screening component, 43 women underwent the exam. Of these, 37 women were negative for acetic white lesions, and were given a recommendation to return for another screening in 3 to 5 years. Six women had a positive VIA, and received treatment during the same visit. A recommendation was made to them to return for a follow-up appointment and screening in 3 months to 1 year. An additional 6 women were referred to a physician for other gynecologic conditions.

The Educational Campaign

During the 2 days of the conference, a total of 598 handouts were distributed. An estimated 40 to 60 presentations were done to groups of 2 to 10 women. An additional 200 handouts were left at the family planning clinic in Antsirabe.

Conclusions and Future Directions

The goals of this project were reached through collaboration between medical personnel in Madagascar and the US. The screening program reached a small number of women, and has potential to continue as a part of the work at HLA. Even if the program was discontinued, research suggests a single lifetime screening at 35 years old lowers cervical cancer risk 25-35%6 Future challenges still exist, such as improvement of available treatment options for VIA positive patients and for diagnosis and treatment of suspected cancers.

The educational campaign was targeted at a range of women from rural areas, who expressed interest in obtaining the screening after they had received the informational materials. Unfortunately, like many developing countries, even relatively small health expenses remain out of reach of most of the population. Because of this and the overall lack of health resources available in Madagascar, the long-term viability of the program remains uncertain and future efforts must continue to focus on this important area of women’s health.

References


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Women listening to a presentation on cervical cancer and the available screenings. At an annual church conference, 598 handouts were distributed over 2 days.

The cover of the informational handout about cervical cancer and the available screenings.