Cervical Cancer Prevention

ACCP Alliance for Cervical Cancer Prevention

FACT SHEET

Treating Precancerous Cervical Lesions

A critical component of effective cervical cancer screening programs is the ability to offer women appropriate, effective treatment for precancerous cervical lesions, thereby reducing overall cervical cancer incidence and mortality. In developed countries, management of precancerous lesions has shifted from use of inpatient surgical methods to use of outpatient approaches. In many developing countries, however, clinicians must still rely on inpatient methods such as cone biopsy and hysterectomy to treat dysplasia.[1] Introducing simpler, less invasive, outpatient treatment methods, such as cryotherapy and loop electrosurgical excision procedure (LEEP), can effectively treat high-grade squamous intraepithelial lesions (HSIL) in most women. At the same time, they minimize women's health risks, help increase program effectiveness, and reduce strain on scarce health care resources.[2]

What types of lesions should be treated?

In most developed countries, a common strategy is to treat HSIL and monitor women with low-grade squamous intraepithelial lesions (LSIL). In low-resource settings, strategies will vary according to local epidemiological findings, program capability to treat and monitor women, and cost considerations. For example, in cases where women are unlikely to return for follow-up care, it may be appropriate to treat LSIL in eligible women. In addition, in some settings a test that cannot differentiate between LSIL and HSIL, such as VIA or HPV DNA tests, may be used to identify those with possible precancer. In such cases, and where no confirmatory test is available or performed, treatment is being offered to many women who are test-positive but whose exact grade of disease is unknown.

Appropriate treatment technologies

There are several outpatient options available for treating precancerous lesions. Ablative methods, such as cryotherapy, cold coagulation, laser vaporization, and electrosurgery (cauterization), destroy the abnormal cervical tissue. Excisional methods, such as LEEP, remove the abnormal tissue. The lesion size, severity, and location on the cervix help determine the most appropriate treatment option. Other factors that influence the choice of treatment include: treatment effectiveness, associated complications, and side effects; regulations regarding what level of clinician is authorized to provide the treatment; necessary equipment and supplies; availability; and cost.[3] Adequate training is essential to ensure effective treatment. New materials have been developed specifically to support training in low-resource settings.[3,4]

Cryotherapy

Cryotherapy, which uses a low-temperature probe to freeze abnormal cells, often is considered the most practical ablative method for use in low-resource settings. It is simple, inexpensive, and does not require electricity. Twelve months after treatment, cryotherapy is approximately 90 percent effective in treating HSIL.[5] Cryotherapy generally produces a lower cure rate for larger lesions (bigger than the tip of the cryotherapy probe or occupying, on average, over 75 percent of the surface area of the cervix) and for lesions that extend into the cervical canal. Where available, an alternative treatment plan should be considered for women with these types of lesions.[2,5]

Treatment of HIV-infected women

Precancerous cervical lesions tend to be more prevalent, persistent, and likely to recur in HIV-positive women. Therefore, these women should receive special counseling prior to treatment. Women should be advised that cryotherapy, as well as other outpatient treatment methods, are likely to be less effective in treating lesions in HIV-positive women and that they will need regular follow-up care. There is some evidence that HIV shedding increases substantially (but temporarily) at the site of cryotherapy.[6] This shedding may increase the risk of HIV transmission to an uninfected partner. Effective counseling is essential on the importance of abstaining from sexual intercourse during the healing period (or using a condom if abstinence is impossible).

Cryotherapy appears to be safe and acceptable

Complications associated with cryotherapy are minimal. Available data suggest that cryotherapy is safe, with very little risk of major complications.[5] Severe bleeding and pelvic inflammatory disease, two of the most serious potential complications, are extremely rare in women treated with cryotherapy. There also is no evidence that cryotherapy is linked to cervical stenosis or has any long-term impact on women's fertility or pregnancy

outcomes—important considerations when treating women of reproductive age.[5,7] These findings suggest that offering cryotherapy treatment to women with positive screening results in the same visit (called a single-visit approach) may be a rational approach in some settings.[5,7] Women should be given clear, accurate information about the need to return for care if indications of a serious complication arise after treatment.

Cryotherapy generally is an acceptable treatment option for women. Many women experience mild discomfort, such as pain or cramping during or within two to three days after the procedure. They may also experience dizziness, fainting, or flushing during or immediately after treatment. For these reasons, women undergoing cryotherapy need clear information and support to alleviate possible anxieties. The most frequently experienced side effect of cryotherapy is the presence of a profuse, watery vaginal discharge for up to four weeks. Although this may be inconvenient, women can effectively manage it by using a clean cloth or sanitary pads for protection.[5]

LEEP

Excisional treatment methods such as LEEP have the advantage of providing tissue specimens for histopathologic diagnosis (if available), thereby reducing the possibilities of overlooking invasive cancer or of incomplete eradication of precancerous cells. LEEP, sometimes known as large-loop excision of the transformation zone (LLETZ), utilizes a thin electric wire to remove the entire transformation zone of the cervix. LEEP is 90 to 95 percent effective in treating high-grade dysplasia, but is more burdensome than cryotherapy in terms of necessary provider skills and training, equipment needs, reliance on electricity, and cost.[8] LEEP also is associated with a slightly higher rate of complications and side effects, such as postoperative bleeding and perioperative pain.[9] For these reasons, it may be most practical to offer LEEP at a central hospital or regional referral center and offer cryotherapy at local health clinics.[2]

Since both cryotherapy and LEEP are associated with failure rates of up to 10 to 15 percent, depending on the lesion characteristics, post-treatment follow-up at a minimum of one year later is recommended. Although some clinicians believe that shorter follow-up intervals are more appropriate, such a system may not be practical in low-resource settings.

Policy implications

Planners of cervical cancer prevention programs should consider the following treatment issues:

- Rely on outpatient treatment technologies as much as possible to appropriately manage precancerous lesions; this makes effective treatment more broadly accessible to women.
- Expand access to treatment services by making cryotherapy available at the local level and broadening provider guidelines and regulations so that non-physicians can perform outpatient treatments such as cryotherapy.
- Where differentiation is possible, focus treatment on high-grade or severe lesions instead of all lesions, since most LSIL regress spontaneously. In settings where women are unlikely to come back for a follow-up visit, however, it may be appropriate to also treat LSIL, especially in older women (women aged 30 years and above).
- In general, cryotherapy is suitable for treating a lesion that is located on the ectocervix, occupies less than three-quarters of the transformation zone, and does not extend into the cervical canal or vagina.
- For women not considered good candidates for cryotherapy, an alternative treatment method such as LEEP is recommended.
- Support research to explore alternative management strategies so that the number of visits required for screening, diagnosis, treatment, and follow-up may be reduced.

References

1. Bishop A, Sherris J, Tsu V. *Cervical Dysplasia Treatment in Developing Countries: A Situation Analysis.* Seattle, WA: PATH (July 1995).
2. Bishop A, Wells E, Sherris J, et al. Cervical cancer: evolving prevention strategies for developing countries. *Reproductive Health Matters* (6):60–71 (November 1995).
3. JHPIEGO. McIntosh N, Blumenthal P, Blouse A, eds. *Cervical Cancer Prevention Guidelines for Low-resource Settings.* Baltimore, MD: JHPIEGO Corporation (July 2000).
4. Sellors JW and Sankaranarayanan R. *Colposcopy and Treatment of Cervical Intraepithelial Neoplasia: A Beginners' Manual.* Lyon:IARC (2003).
5. ACCP. *Effectiveness, Safety, and Acceptability of Cryotherapy: A Systematic Review.* Seattle, WA: PATH (January 2003).
6. Wright TC Jr, Subbarao S, Ellerbrock TV, et al. Human immunodeficiency virus 1 expression in the female genital tract in association with cervical inflammation and ulceration. *American Journal of Obstetrics and Gynecology* 184(3):279-285 (February 2001).
7. Gaffikin L, Blumenthal PD, Emerson, M, et al. (RTCOG/JHPIEGO Cervical Cancer Prevention Group). Safety, acceptability, and feasibility of a single-visit approach to cervical cancer prevention in rural Thailand: a demonstration project. *Lancet* 361:814-820 (2003).
8. Dodson MK, Sharp HT. Uses and abuses of the loop electrosurgical excision procedure (LEEP). *Clinical Obstetrics and Gynecology* 42(4):916-921 (December 1999).
9. Mitchell MF, Tortolero-Luna G, Cook E, et al. A randomized clinical trial of cryotherapy, laser vaporization, and loop electrosurgical excision for treatment of squamous intraepithelial lesions of the cervix. *Obstetrics and Gynecology* 92(5):737-744 (1998).

Alliance for Cervical Cancer Prevention Members
EngenderHealth, 440 Ninth Avenue, New York, New York 10001 USA, Tel: (212) 561-8000
IARC (International Agency for Research on Cancer), 150, cours Albert-Thomas, F-69372, Lyon cedex 08, FRANCE, Tel: (011) 33-472738599
JHPIEGO Corporation, 1615 Thames Street, Baltimore, Maryland 21231 USA, Tel: (410) 955-8618
PAHO (Pan American Health Organization), 525 Twenty-Third Street, N.W., Washington, DC 20037 USA, Tel: (202) 974-3890
Program for Appropriate Technology in Health (PATH), *Alliance coordinating agency*, 1455 NW Leary Way, Seattle, Washington 98107 USA, Tel: (206) 285-3500

Support for development of this document was provided by the Bill & Melinda Gates Foundation through the Alliance for Cervical Cancer Prevention (ACCP). For more information, please visit the ACCP website: www.alliance-cxca.org. The Alliance can be contacted by writing to the ACCP in care of PATH or by email: accp@path.org.
April 2003

ACCP Alliance for Cervical Cancer Prevention