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HSIL and LLETZ

Management of a cervical biopsy with precancerous cells

Screening for cervical cancer has greatly reduced the rates of cervical cancer. Cervical cancer screening usually consists of a Pap smear (also called a Pap test or cervical cytology) and, in some women, a test for human papillomavirus (HPV), a virus that can cause cervical cancer. Women who are found to have abnormal cells that are precursors to cancer (called a precancerous lesion or cervical dysplasia) of the cervix need further follow-up or treatment. Cervical abnormalities may be referred to as cervical dysplasia, cervical intraepithelial neoplasia (CIN), or adenocarcinoma in situ (AIS).

The outer surface of the cervix is composed of cells called squamous cells. A precancerous lesion affecting these cells is called CIN. These changes are categorized as being mild (CIN 1) or moderate to severe (CIN 2 or 3).

The canal of the cervix is lined with glandular cells. A precancerous lesion affecting these cells is called AIS. Precancerous lesions are diagnosed using a cervical biopsy or endocervical curettage (ECC), usually during a colposcopy procedure, which is described elsewhere.

Treatments for lesions include cryosurgery (freezing), laser (high-energy light), and excision (surgical removal of the abnormal area, also referred to as a cone biopsy or conization, or Large Loop Excision of the Transformation Zone (LLETZ)).

MANAGEMENT OF HIGH-GRADE CIN — High-grade squamous lesions (cervical intraepithelial neoplasia [CIN] 2 or 3) have a high risk of persisting or developing into cervical cancer over a period of years. In most women, CIN 2 or 3 is treated by removing or destroying the abnormal area.

However, in some women, it is reasonable to delay treatment and instead monitor the abnormal cells. Also, pregnant women should delay treatment until after giving birth unless cancerous cells are already present. Women who have not yet had children should be aware that some types of treatment may result in an increased risk of preterm delivery or other complications during a future pregnancy.

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CHOOSING THE BEST TREATMENT FOR ABNORMAL PAP SMEARS — Abnormal Pap smears are treated by identifying the area of abnormal cervical tissue and removing it to prevent worsening or spread to other areas of the cervix. There are two main types of treatment for cervical abnormalities:

- Those that destroy the abnormal area (called ablative therapy)
- Those that remove the abnormal areas (called excisional therapy, cervical conization, or a cone biopsy)

Some abnormalities are best treated with one type of treatment while others can be treated with either type, depending upon the patient and clinician's preference. There are some types of abnormalities that can be followed without treatment, if the clinician and patient are willing.

Excisional therapy — Excisional therapies include Large Loop Excision of the Transformation Zone (LLETZ), also called loop electrosurgical excision procedure (LEEP)

Excisional therapy is recommended when the extent or type of cervical abnormality is not clear based upon colposcopy and biopsy or when there is a severe abnormality. In this situation, excision is preferred because the abnormal tissue can be examined with a microscope. This allows the clinician to determine whether the entire abnormal area was removed and whether a more serious condition (cervical cancer) is present.

Excision serves two purposes:

- It provides a sample of tissue to confirm the degree of an abnormality and check for cancerous or precancerous cells deep within the cervix.
- Excision helps to ensure that the abnormality is removed completely. If the edges of the tissue that is removed show evidence of the abnormality or precancer, further treatment may be needed.

Excision can be done in the clinician's office or operating room after the cervix is injected with local anaesthesia to prevent pain. The woman may feel a dull ache or cramp during the procedure. A brown paste is applied after the treatment to prevent bleeding; this often causes a dark vaginal discharge (like coffee grounds). Most women can return to work or school after the procedure.

Following a cervical excision, most women have mild to moderate vaginal bleeding and discharge for one to two weeks. The bleeding should not be heavy (eg, should not soak a pad in less than one hour).



Large Loop Excision of the Transformation Zone (LLETZ) — Excision can be done in the clinician's office or in the operating room with a device that uses electrical current; large loop excision of the transformation zone (LLETZ). A thin, wire loop is inserted through the vagina, where it uses an electric current to remove a cone-shaped portion of the cervix. This can also be performed with a laser knife, which uses high intensity energy from a light beam.

Complications — As with any surgical procedure, complications can occur during excision. These include:

- Bleeding during the procedure – Bleeding is rarely serious, and can usually be managed with suturing or by applying cauterizing material (a liquid or treatment that helps the blood to clot) to the cervix.
- Bleeding after the procedure – Although light bleeding or spotting is normal, some women have heavy bleeding several days or weeks after the procedure. This can usually be treated in the office, but occasionally a procedure in an operating room is necessary.
- Infection – Infections occur rarely after cone biopsy, either on the cervix itself or elsewhere in the reproductive tract. Most infections can be treated with oral antibiotic therapy.
- Perforation of the uterus – This is an uncommon complication, and is more likely to occur in women who are postmenopausal or whose uterus is tipped forward. If the uterus is perforated, it usually heals without any need for treatment. Infrequently, additional surgery is needed to see and repair injuries to internal organs.

POSTPROCEDURE CARE — All women should ask about their ability to drive home from the procedure and when they can resume normal daily activities. Following treatment, most providers recommend avoiding sexual intercourse, not placing anything in the vagina (eg, douches, tampons), and not taking a bath or swimming for a few weeks (showers are fine); other clinicians may recommend a shorter period of "pelvic rest." This should be discussed in detail with the clinician.

In general, a woman should call her provider if she has bleeding that is heavier than a normal menstrual period (defined as soaking a pad in less than one hour, especially if there are clots), severe or worsening pain, fever over 38.4°C, or a foul-smelling vaginal discharge.

Treatment efficacy — Although the treatments described above are effective, recurrence or persistence of cervical dysplasia is common and occurs in up to 30 percent of women. Women that are not cured after a first treatment may have persistence, recurrence, or progression of the abnormality, especially if a high-risk type of human papillomavirus (HPV, types 16 and 18) is



present. Additional treatment is sometimes needed in this case. For this reason, lifelong follow-up with cervical cytology smears (Pap test) is important.

Follow-up appointments — Typically, a woman is seen for a follow-up examination several weeks after treatment to make sure the cervix is healing. The type of follow-up and time interval between subsequent tests will depend upon the results of the initial testing after treatment and the woman's age. Follow-up is best discussed with a woman's individual provider since it may vary significantly from one woman to another.

Need for further treatment — Some women will require additional treatments to ensure that all abnormal areas are removed. This is especially true if excision was done and microscopic analysis showed a larger abnormality than was expected. The decision to have additional treatment is individualized, based upon the type of abnormality seen, the woman's risk of cervical cancer, and whether or not childbearing is completed.

PREGNANCY AFTER TREATMENT FOR ABNORMAL PAP SMEAR — Many women are concerned about the risks of infertility and preterm labour after being treated for an abnormal Pap test. Treatments do not seem to affect fertility. With some types of treatments, there may be some risk of complications during a pregnancy. In general, the data suggest that excisional procedures slightly increase the risk of preterm delivery, but ablative procedures do not. Other factors, such as underlying medical conditions and a woman's age, can also increase a woman's risk of these conditions.

Most women are advised to wait at least three months after a cervical ablation or excision before attempting to become pregnant to al