PREVENTIVE WOMEN'S HEALTH
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THE ABNORMAL PAP SMEAR

Anatomy of the Cervix

The cervix is the lower part of the uterus (womb) which sits in the back of the vagina. The cervix normally sheds microscopic cells into the vagina which are harvested during the pap smear.
The function of the female cervix is to 'pull' sperm from the vagina up into the uterus so that pregnancy can occur.
Once a women starts having intercourse, she is at risk of developing abnormal **pre-cancerous cells** on her cervix which are called **dysplasia.** Although these cells are not yet actual cancer, in time without detection or treatment they will develop into cervical cancer.
The purpose of the pap smear screening protocol is to find these women who have dysplasia and offer treatment before the disease progresses to cervical cancer. There is **no symptoms** with dysplasia to alert the patient and the cervix usually appears normal on visual exam by the gynecologist. The pap smear along with a cervical tissue biopsy is the **only** way to find and diagnose dysplasia.

Cervical Dysplasia Diagnosis

A pap smear is not a 'true' **tissue** diagnosis but rather a description of the size of the cervical cells that the pathologist sees under the microscope of the pap smear slide. If these cervical cells are larger than normal, the pathologist will diagnose the pap smear abnormal. **THIS DOES NOT MEAN THAT THE PATIENT HAS DYSPLASIA.**
Pap smears have a false positive rate (meaning the pap smear is abnormal but there is no dysplasia present) of 15-20 %. It is now up to the gynecologist to either repeat the pap smear or to further exam the patient's cervix with a microscope (colposcope) and take a small piece of tissue from the cervix (tissue biopsy). A tissue biopsy will give a definitive diagnosis as to whether dysplasia is present.
It is important to note that an abnormal pap smear result does not necessarily mean that the patient has dysplasia. Dysplasia can only be detected with a colposcopic directed cervical tissue biopsy.

Possible Pathology Results:
1) Normal- 'negative for intraepithelial disease
2) ASCUS- 'atypical cells'- 98% have no dysplasia
3) LGSIL- 'Low grade'- 15-20% will have dysplasia
4) HGSIL- 'High grade'- 50-70% have dysplasia

It can be seen that as the pap smear result gets worse (from 1-4 above), the chances of the patient having dysplasia cells present on her cervix increases. Yet even with LGSIL, most of those women (80-85%) are normal with no dysplasia.

Cervical Colposcopic Exam

The diagnosis of cervical dysplasia requires the use of a microscope (colposcope) to visualize the cervix and take a very small piece of tissue for a tissue biopsy. The colposcopic exam is a simple office procedure not much different than performing a pap smear which takes about 15 minutes with very little pain or bleeding. Patients can leave the office and go back to work the same day. The pathology result takes about a week to come back from the pathologist.

Treatment

1) No Dysplasia on biopsy- no further treatment is needed and the patient can wait a year for her next pap.
2) Dysplasia- if found it will need to be removed/destroyed before it can progress to cervical cancer.

LEEP Cone Biopsy of Cervix

This is a surgical procedure, usually done in the outpatient Surgi-Center with the patient asleep. It involves removing a portion of the cervix which contains the dysplasia cells.

Follow-up

Once a patient is treated for cervical dysplasia and the cervix heals, she will require frequent pap smears (every 3-6 months) to watch for recurrent disease. The underlying cause for cervical dysplasia/cancer is felt to be HPV (human papilloma virus) which is a sexual transmitted virus that also causes genital warts.