

CERVICAL DYSPLASIA

By Cindy Micleu, L.Ac.

In a normal, healthy cervix the cells in the surface lining occur in layers, with round young cells on the bottom and mature flatter cells on the top. Cervical dysplasia is characterized by abnormal cell shapes and disorganized cell layers. In mild dysplasia there are only a few abnormal cells, in moderate dysplasia the abnormal cells affect the top half of the lining of the cervix, and in severe dysplasia, the entire thickness of the surface cervical cells are abnormal. With invasive cervical cancer, the abnormalities affect the entire thickness of the lining as well as the cervical tissue below.

Cervical dysplasia is considered to be "pre-cancerous," a term that can be misleading as it means there are no cancer cells present, but *may* become cancer. Statistically, mild dysplasia is more likely to go away without any treatment than severe dysplasia. Severe dysplasia, if left untreated, is more likely to become invasive cancer.

It is important to realize that the different grades of cervical dysplasia are not a stepwise progression but represent a description ranging from a slight irregularity in the cells to a full thickness abnormality. The most important concept is that dysplasia is limited to the lining of the cervix, and has not invaded into the underlying tissue. Even "carcinoma in situ" is not invasive cancer.

THE PAP SMEAR

An abnormal Pap smear indicates the presence of abnormal cells on the surface lining of the cervix (squamous-epithelial cells). Pap smear results may be reported as either negative or abnormal. A negative Pap smear means there are no abnormal, pre-cancerous, or cancerous cells. It is labeled as "negative for intraepithelial lesion or malignancy". An abnormal Pap smear is classified according to the level of severity and describes the abnormalities of the cervix, including dysplasia, squamous intraepithelial lesion, and intraepithelial neoplasia. These terms all mean that the abnormality is confined to the surface or glandular lining of the cervix.

Using the colposcope, a small piece of the abnormal area can also be biopsied. The procedure is done without anesthesia and can cause mild discomfort or cramping. When a biopsy of the inner cervix is done during colposcopy it is called endocervical curettage.

HPV AND RISK FACTORS FOR CERVICAL CANCER

Infection of the cervix with certain types of Human papillomavirus (HPV) has been identified as the most significant risk factor for cervical abnormalities and cervical cancer. Over 100 different types of HPV have been identified, however not all types infect the cervix or cause cancer. Researchers have labeled the HPV types as being high or low risk for causing cervical cancer. HPV types 6 and 11 can cause warts and are low-risk types because they rarely cause cervical cancer; types 16 and 18 are considered high-risk types because they may cause cervical cancer in some

women. Other risk factors include the number of sexual partners, age of onset of sexual activity, cigarette smoking, use of oral contraceptives, and a weakened immune system (e.g., due to HIV infection or certain medications).

Though HPV testing is common, it brings with it a high rate of false positive results (when the HPV test is falsely positive and the Pap smear is negative). It is likely that many women develop HPV infections that resolve spontaneously. Having a false positive result leads to unnecessary follow-up testing, and anxiety for many women.

HPV is spread by direct skin-to-skin contact, including sexual intercourse, oral sex, anal sex, or any other contact involving the genital area (e.g., hand to genital contact). Most people infected with HPV have no signs or symptoms. The infections are temporary and usually resolve within two years. When the virus persists (in 10 to 20 percent of cases), there is a higher likelihood of developing cervical cell abnormalities and cancer. However, it usually takes several years for HPV infection to cause cervical cancer.

Smoking cigarettes increases the risk of cervical cancer and pre-cancer by up to seven times that of women who do not smoke. This is believed to occur because cancer-causing products from tobacco are secreted into the cervical mucous.

UNDERSTANDING PAP SMEAR RESULTS

Pap smear results can be confusing as there are 3 different rating systems. Prior classification was rated as Class 1-5, with Class 1 being normal, and Class 5 being invasive cancer. Currently, both CIN (Cervical Intraepithelial Neoplasia) grading and the Bethesda System of Staging are most commonly used.

CIN refers to neoplasia (meaning "new growth") of the epithelial or surface layer of cells of the cervix.

CIN I = mild dysplasia

CIN II = moderate dysplasia

CIN III = severe dysplasia or carcinoma in situ

The Bethesda System of Staging describes the low and high-grade lesions that occur when normal cells on the cervical surface are replaced by a layer of abnormal cells.

This system is described below.

Negative for Intraepithelial Lesion or Malignancy indicates there is no evidence of abnormal cellular changes correlated with neoplasia.

ASC (Atypical Squamous Cells)

The cells on the surface of the cervix are slightly abnormal, but not abnormal enough to be called dysplasia. This is the most common type of abnormal result, and often the Pap smear reverts to "normal" when re-tested in 4-6 months. There is a tremendous variation between labs on what will be designated as "atypical" or whether it will be rated "normal". ASC may be differentiated into 2 categories:

1) **ASC-US** (Atypical Squamous Cells of Undetermined Significance) indicates that some of the cervical cells are

abnormal, but it is not considered serious and could be due to a vaginal infection or irritation. Generally, re-testing in 4-6 months will be recommended, and a test for HPV may be done.

2) *ASC-H* (Atypical Squamous Cells where High-grade SIL can't be excluded) indicates that some of the cervical cells are abnormal and there is a small possibility that they may be precancerous, possibly due to the presence of a high-risk strain of HPV. It is usually recommended that a colposcopy be performed within 4 weeks. 5 to 17 percent of these cases will be diagnosed with a precancerous lesion seen on colposcopy.

SIL (Squamous Intraepithelial Lesion)

The cells collected from the Pap smear may be "precancerous." Further diagnostic testing is usually recommended.

1) *LSIL* (*Low-grade Squamous Intraepithelial Lesion*), also called mild dysplasia (corresponding to CIN-1), indicates cellular changes often associated with the presence of HPV, but no cancer cells. Women may be sent for a colposcopy within 4 weeks, but in 50 to 90 percent of these cases of LSIL the abnormality will resolve on its own. Since many of these lesions will heal without treatment, some women prefer to delay treatment and have close monitoring.

2) *HSIL* (*High-grade Squamous Intraepithelial Lesion*) may be moderate dysplasia (corresponding to CIN-II) or severe dysplasia (corresponding to CIN-III). The cells are considered "pre-cancerous" and are definitely abnormal. A colposcopy is usually recommended immediately as there may be a greater chance that cancer cells will develop. Statistics show that approximately 20 percent of these women will develop cervical cancer over a period of several years if no treatment is given. Conventional medicine treatment involves removal of the abnormal area of the cervix.

It should be noted that adolescent patients may be able to delay treatment of HSIL because, in this age group, there is a good chance that the abnormal area will heal without treatment. However close follow-up is important.

3) *Carcinoma in situ*. Cancer cells have been identified, but they are limited to the cervix and not invasive. This is early stage cancer and treatment is strongly recommended.

Squamous Cancer or Adenocarcinoma

The cells appear so abnormal that it is almost certain a cancer is present in the vagina, cervix or, occasionally, the uterus. Squamous refers to cancers arising in the flat surface cells of the cervix. Adenocarcinoma refers to cancers arising in glandular cells.

Other Possible Pap Smear Findings

Other findings may be indicated in the Pap smear report such as the presence of trichomonas, fungal organisms like candida, bacterial vaginosis, inflammation, or atrophy.

AGC (*Atypical Glandular Cells*): Glandular cells develop inside the cervix in the endocervical canal and endometrium, and produce mucus in the cervix and uterus.

This designation means some of the glandular cells are abnormal. These changes are usually more serious and indicate a higher risk for cervical cancer. Further evaluation is recommended because 10-40 percent of women in this group show pre-cancerous or cancerous cells on colposcopy and biopsy.

Inflammation: White blood cells will be seen on the Pap smear. Inflammation of the cervix is very common and usually does not mean there is a problem. If the inflammation is severe, a diagnostic test to check for infection may be recommended, as well as a repeat Pap smear in 4-6 months.

Hyperkeratosis: Dried skin cells have been identified. This change in the cells of the cervix often occurs from using a cervical cap or diaphragm or from having a cervical infection, and is generally not a concern.

ORIENTAL MEDICINE DIAGNOSTIC CONSIDERATIONS

Making an Oriental Medicine diagnosis can be challenging in cases of mild to moderate cervical dysplasia because there are generally no obvious symptoms until the actual development of cervical cancer. But because women are using Pap smears as a screening tool for detecting early stage cell changes, we usually have the opportunity to treat women before the condition becomes serious. The main diagnostic categories are:

- Liver Qi and Blood Stasis
- Damp-Heat in the Lower Burner
- Liver-Kidney Yin Deficiency
- Damp-Heat or Toxic-Heat in the Liver Channel
- Ren and Chong Mai Disharmony

Underlying constitutional factors such as weakness of the Liver-Kidney can lead to the lack of regulation and health of the reproductive system in general. In particular, the cervix is ruled by the Liver channel, which wraps around the genitalia, and the Ren channel. The main cause of disharmony between the Ren and Chong is said to occur when from damage when engaging in sexual intercourse prior to adolescence. Due to the nature of the connection between the Heart and the uterus, this etiology can include physical sexual abuse as well as emotional sexual trauma.

With mild cervical dysplasia it is common to see few symptoms, and even a visual inspection of the cervix often shows no abnormal changes. These cases may be correlated with excessive or prolonged stress such as the loss of a loved one, a relationship break, or intense work stress. The stress is internalized, causing Liver qi stagnation and eventually blood stasis. It is common for these patients to respond well to acupuncture and mild qi dispersing formulas. Pap smears often revert to normal when repeated in 6-12 months.

Human papillomavirus (HPV), which has been identified as a risk factor in the development of cervical cancer, is viewed in Oriental Medicine as a pathogen causing the stasis of phlegm-damp. It is asymptomatic, and remains latent, unless other factors occur to stimulate the development of

deeper changes in the cervical tissue cells. Diet and lifestyle may also be underlying factors in the accumulation of dampness and heat in the lower burner.

In many cases a good diagnosis can be made by an assessment of the general Oriental Medicine categories above, with a particular emphasis on any menstrual or other reproductive symptoms. Results of a visual inspection of the lining of the cervix can also be quite helpful. The color of the cervix as seen on exam, as well as dryness and tendency to pain or bleeding with direct pressure on the cervix, are all invaluable clues to making a TCM diagnosis. This information is not generally included in a Pap smear report, but upon request, a doctor will often be willing to pay attention to these signs when doing a pelvic exam and report them to the patient or directly to her acupuncturist.

The *zheng qi* (or upright qi) is likely weak with most cancers or precancers, and the underlying deficiency should always be addressed in all diagnostic categories. This is generally accomplished by supporting the qi with acupuncture and Chinese herbs. The Spleen qi should be addressed as necessary.

The following is a symptom guide for the Oriental Medicine diagnosis of mild to moderate cervical dysplasia (early stage) and severe dysplasia to cervical cancer (later stage). Of course, the Western diagnosis can only be made through physical and laboratory exams such as a Pap smear or microscopic evaluation.

CHINESE HERBAL MEDICINE

Liver Qi and Blood Stasis

Early Stage: dysmenorrhea, PMS, breast pain or distention, irregular menstruation, depression or irritability, possible recent history of excessive stress, alternating loose stool and constipation. Cervix may not show obvious changes on visual inspection. Tongue: normal to dull or slightly purple, may have reddish sides. Pulse: wiry.

Later Stage: dysmenorrhea with clotted blood, irregular menstruation, vaginal discharge that is white to yellow, with a small amount of blood, lower abdominal pain or distention, emotional depression or irritability, bitter taste, constipation with dry stool. Tongue: yellow coat, dull to purple body, reddish sides. Pulse: wiry, choppy.

GFCH Formulas:

- **Immortal Valley Formula** (*Xian Gu Fang*) with **Bupleurum & Tang Kuei Formula** (*Xiao Yao San*), for Liver qi and blood stasis.
- **Immortal Valley Formula** (*Xian Gu Fang*) with **Free & Easy Wanderer Plus** (*Jia Wei Xiao Yao San*), for Liver qi and blood stasis with more heat.
- **Five Mushroom Formula** (*Wu Gu Fang*) may be added for additional immune support.

Damp Heat in the Lower Burner

Early Stage: vaginal discharge, vaginal itching and burning, local pain and soreness, post-coital bleeding, low back, sacrum, and low abdomen may have a heavy or achy sensation. Cervix may bleed easily ("friable cervix") Tongue: red with yellowish, possibly greasy coat in rear. Pulse: rapid, slippery.

Later Stage: foul smelling vaginal discharge that is thick or sticky, maybe blood streaked, low abdominal ache or pain. low back or sacral region pain, frequent urine, urgent urination, heavy menstruation maybe with some mucus or tissue fragments, post-coital bleeding. Tongue: red, with yellow dry coat. Pulse: rapid, wiry.

GFCH Formulas:

- **Immortal Valley Formula** (*Xian Gu Fang*)
- **Immortal Valley Formula** (*Xian Gu Fang*) with **Six Gentlemen Formula** (*Liu Jun Zi Tang*), for accompanying Spleen deficiency with dampness.
- **Five Mushroom Formula** (*Wu Gu Fang*) may be added for additional immune support.

Liver - Kidney Yin Deficiency

Early Stage: cervix has overall or patchy dry redness, maybe mild itching, low back soreness, knees sore, insomnia with waking at night, dizziness, possible vaginal discharge with blood. Tongue: red-dish body or tip, scanty or no coat. Pulse: deep, thin, maybe rapid, maybe slightly wiry.

Later Stage: foul smelling vaginal discharge, night sweats, afternoon heat, 5 centers heat, insomnia with waking at night, low back and knee pain. Tongue: red, with scanty or no coat, maybe deep midline crack. Pulse: deep, thready, weak, maybe rapid.

GFCH Formulas:

- **Yin Valley Formula** (*Yin Gu Fang*)
- **Yin Valley Formula** (*Yin Gu Fang*) with **True Yin Formula**, (*Zuo Gui Jia Er Zi Wan*) when stronger yin nourishing is desired.
- **Yin Valley Formula** (*Yin Gu Fang*) with **Rehmannia & Scrofularia Formula** (*Zhi Bai Di Huang Wan*), for yin deficiency with empty heat.
- Five Mushroom Formula** (*Wu Gu Fang*) for additional immune support.

Toxic-Heat or Damp-Heat in Liver Channel

Early Stage: cervix is red, irritated and sore due to viral infection in the local region. Tongue: red spots (regardless of other color of body or coat). Pulse: rapid.

Later Stage: yellow vaginal discharge with blood, maybe fever, constipation, blood in urine, usually accompanies damp-heat in lower burner pattern (see above). Tongue: bright red, with yellow, dry coat. Pulse: rapid, wiry.

IMMORTAL VALLEY FORMULA

Lonicera Jin Yin Hua.....	12%
Coix Yi Yi Ren.....	11%
Smilax Rhizome Tu Fu Ling.....	11%
White Peony Bai Shao.....	10%
Dioscorae Shan Yao.....	10%
Oldenlandia Bai Hua She She Cao.....	10%
Phellodendron Bark Huang Bai.....	8%
Achyranthes Niu Xi.....	8%
Polyporus Zhu Ling.....	8%
Paris Chong Luo.....	7%
Zeodaria E Zhu.....	5%

GFCH Formulas:

Yin Valley Formula (*Yin Gu Fang*) with **Coptis Relieve Toxicity** (*Huang Lian Jie Du Pian*), for heat toxin.

Yin Valley Formula (*Yin Gu Fang*) with **Gentiana Drain Fire Formula** (*Long Dan Xie Gan Tang*), for Liver fire or damp heat in the lower burner.

Five Mushroom Formula may be added for additional immune support.

DISCUSSION

Only practitioners with advanced training in oncology should treat cervical cancer with Chinese herbs. Treatment recommended here is limited to patients with cervical dysplasia or SIL (squamous intraepithelial lesion).

Beginning with a formula or group of herbs that target the main OM diagnosis, herbs may be added to:

- Support the Zheng qi
- Address HPV infection
- For cancer prevention

Chinese herbs commonly used to support the Zheng qi:

Huang Qi (Astragalus)

Dang Shen (Codonopsis)

Tai Zi Shen (Pseudostellaria)

Bai Zhu (Atractylodes)

Medicinal mushrooms such as Reishi, Maitake, Cordyceps

Chinese herbs specifically addressing HPV infection:

Bai Hua She She Cao (Oldenlandia)

Ban Lan Gen (Isatis)

Jin Yin Hua (Lonicera flower)

Da Suan (Allium)

Huang Lian (Coptis)

Huang Qin (Scutellaria)

Huang Bai (Phellodendron)

Lian Qiao (Forsythia)

Ku Shen (Sophora)

Pu Gong Ying (Taraxacum)

Long Kui (Solanum)

Zi Cao (Lithospermum)

Bing Lang (Areca)

Ren Dong Teng (Lonicera vine)

Anti-neoplastic herbs:

Herbs with anti-cancer properties are numerous. They generally increase Natural Killer (NK) cell activity, white blood cells and phagocytes, and have an inhibiting influence on cancer cells. From an Oriental Medicine point of view the herbs primarily clear heat toxin, damp stagnation, and/or move blood stasis. The following is a partial list of commonly used herbs:

Chong Luo (Paris)

Long Kui (Solanum)

Bai Hua She She Cao (Oldenlandia)

Jin Yin Hua (Lonicera flowers)

Huang Lian (Coptis)

Huang Qin (Scutellaria)

Huang Bai (Phellodendron)

Zhi Zi (Gardenia fruit)

Ban Zhi Lian (Scutellaria barbata)

E Zhu (Zedoaria)

Niu Xi (Achyranthes)

Jiao Gu Lan (Gynostemma)

Yi Yi Ren (Coix)

Zhu Ling (Polyporus)

Fu Ling (Poria)

Tu Fu Ling (Smilac)

Xian He Cao (Agrimony)

YIN VALLEY FORMULA

Black Solanum Long Kui12%

Pseudostellaria Root Tai Zi Shen... 11%

Oldenlandia Bai Hua She She Cao... 11%

Ophiopogon Mai Men Dong.....10%

Lonicera Flower Jin Yin Hua..... 10%

Polygonatum Yu Zhu..... 9%

Phellodendron Huang Bai.....9%

Lycii Gou Qi Zi.....9%

Eclipta Han Lian Cao.....8%

Sargentoxa Hong Teng6%

Zeodaria E Zhu.....5%

Acupuncture Point Selection:

Disharmony of the Ren and Chong Mai: Lu 7 with K 6, Sp 4 with P 6

Local points: Zigong, Ren 2

Toxic Heat or Damp Heat: Liv 5, Liv 2, GB 41, UB 53, Sp 9, Sp 6, Ren 3

Liver-Kidney Yin Deficiency: K 3, K 7, K 6, Liv 8, UB 23, Ren 3 or 4, Sp 6

Liver Qi and Blood Stasis: UB 31-34, UB 22, Sp 10, Liv 3, Sp 6

Zheng Qi Support: Ren 4, Ren 6, Du 4, UB 17, UB 20, UB 23, UB 52

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