

Abnormal Pap Smears: Management and Counseling

**Satellite Conference and Live Webcast
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Faculty

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Program Objectives

- **Discuss the epidemiology and etiology of cervical precancerous and cancerous disease.**
- **Describe the natural course of HPV infection and its role in the development of cervical cancer.**
- **Discuss new Pap smear recommendations and the rationale behind the new changes.**

Program Objectives

- **Describe Bethesda 2001 Pap terminology.**
- **Discuss management guidelines for various abnormal Pap smear findings.**

Cervical Cancer

- **Incidence of Cervical Cancer:**
 - **9.2 per 100,000 (age-adjusted for the US population) in 2000**
- **Cervical cancer incidence has decreased by 77.7% from 1950 to 2001**
- **Mortality reduced by as much as 70%**
 - **Due to pap smear screening**

Etiology of Cervical Cancer

- **Infection with high risk HPV**
 - **16,18,31,33,35,39,45,51,52,56,58,59 and 68**
 - **Mostly 16,18,45 and 31**

HPV Infection

- The prevalence of genital HPV infection
 - Highest among sexually active teens and women in their 20s
 - Decreases after age 30

HPV and Cervical Cancer

- HPV infections resolve spontaneously within 1-2 years.
- Persistent infection with High Risk HPV infection is a prerequisite for the development of cervical cancer.
- Although HPV infection is necessary for the development of cervical cancer, majority of women who are infected with HPV do not develop cervical cancer.

Risk Factors for Cervical Cancer

- Infection with high-risk HPV
- Smoking
- Immunosuppression
- Multiple sex partners
- Young age at first pregnancy
- Low socioeconomic status
- Long term oral contraceptive use

Methods of Testing

- Conventional Method:
 - Glass slide, wooden spatula and cytobrush
- Liquid Based Method:
 - Cervex brush or broom
 - Plastic spatula and cytobrush

Pap Screening

- Conventional Pap smear is associated with a high rate of false-negative results.
- The use of liquid based Pap testing has decreased the incidence of false-negative Pap results.

Liquid Based Pap Smears

- Shorge et al reported that ThinPrep yielded a higher pickup of
 - Atypical glandular cells of undetermined significance (AGUS)
 - Adenocarcinoma
 - 0.17% of LBP vs 0.09 of conventional

Liquid Based Paps Smears

- In addition, the sensitivity of AGUS and adenocarcinoma was found to be significantly greater with the liquid-based test
 - 72.0% with LBP vs 41.5% with conventional

HPV Vaccination

- In June 2006, the first HPV vaccine, Gardasil was introduced
 - Effective against types 6 and 11 which cause genital warts
 - 16 and 18 that are associated with cervical cancer

Gardasil

- The quadrivalent vaccine
 - Approved by the US FDA for administration to females between 9 and 26 years of age
 - Can be given even if infected with HPV
 - Given as 0.5 ml dose initially, at 2 months and 6 months

Gardasil

- Recently, the American College of Obstetrics and Gynecology published its recommendations:
 - Pap test prior to vaccination
 - Continue Pap after vaccination

Barriers to Vaccination

- Cost
- Potential for side effects
- Parents' acceptance of the concept of vaccinating their preadolescent and adolescent daughters against a STD

HPV Vaccine

- Protection against HPV 16 and 18 only.
- It is unknown how long the immunity lasts.
- Other oncogenic subtypes account for 30% of cervical cancers.
- All these are important reasons to continue screening for cervical cancer.

Computer-Assisted Screening

- CAS with an automated microscope was developed to prescreen slides and identify those that contain cells of interest.
- Two systems have been approved by the FDA for use with liquid based Pap smears:
 - Thin Prep Imaging System (TPIS).
 - Focal Point Slide Profiler (FPSP).

Focal Point Slide Profiler

- FPSP works with image analysis software that makes algorithmic judgments about whether a slide specimen is normal or abnormal.

Thin Prep Image System

- TPIS scans slides and identifies cells of interest.
- TPIS imager scans each slide and identifies 22 fields that contain cells of interest.
- The cytotechnologist then reviews those 22 fields using an automated microscope and reports the results.

New Pap Guidelines

- American Cancer Society proposed new Pap smear screening recommendations in 2002 which were later endorsed by United States Preventive Services Task Force and American College of Obstetrics and Gynecology.

New Pap Guidelines

- Begin screening approximately 3 years after the 1st vaginal intercourse or at age 21 whichever comes first
- Test every 1 to 2 years until age 30
 - Every 2 years with liquid-based Pap (ACS)
- Test every 2 to 3 years after age 30
 - In well screened women with negative Pap

New Pap Guidelines

- Consider discontinuing Pap after age 65 to 70 in well-screened women
 - With no history of significant dysplasia
 - Age 65 according to USPSTF and 70 according to ACS

New Pap Guidelines

- Discontinue Pap testing in women whose uterus and cervix have been removed for benign conditions with no history of high-grade cervical dysplasia or cancer.

New Pap Recommendations

- Continue annual Pap screening in women with no cervix:
 - History of cervical cancer/precancer
 - In utero exposure to diethylstilbestrol
 - Immunocompromised women
 - HIV positive individuals

New Pap Guidelines

	ACS	USPSTF	ACOG
Screening Method	Conventional or liquid	Conventional	Conventional or liquid
Initial screening	3 years after the onset of vaginal intercourse or no later than 21 years	Same as ACS	Same as ACS
Screening interval	Annual with conventional pap or every 2 years with liquid based pap until age 30	At least every 3 years	Annual screening before age 30 and then every 2-3 years if 3 consecutive tests are negative

New Pap Guidelines

	ACS	USPSTF	ACOG
Termination of screening	Age 70 if uterus intact, three consecutive negative Paps and no abnormal tests in the last 10 years	Age 65 if recent screening was adequate with normal Pap smears	Same as ACS Recommendations

The Main Questions

- Why wait three years after first intercourse for the first pap test?
- Why is the age 21 the “default” age for first pap test?
- What are the risks and costs of screening every two to three years in well-screened women over age 30? Over age 65?

The Main Questions

- What is the role of HPV DNA testing?
- How should we deal with abnormal results?
- How should we counsel the patients?
- What is the harm in continuing Pap tests in all women?
- Will women return for annual exams as we advise, if we change their Pap routine?

Rationale

- Why wait three years after first intercourse for the 1st pap test?
- Why is the default age 21 for the 1st pap test?

Yearly Pap Smears

- The yearly Pap test was advocated long before data suggested one interval might be better than another.

Why Wait Three Years After Intercourse?

- The goal of Pap smear screening is to diagnose and treat precancerous lesions and prevent cancerous progression.
- A three year delay is highly unlikely to compromise timely diagnosis of high grade lesions.
- It does allow discovery and eradication of dysplastic changes long before they become malignant.

Rationale

- Cervical cancer develops only after persistent HPV infection, many years from the initial infection.
- HPV infections in young women are usually transient.
- Up to 90% of young women who test positive for HPV DNA will revert to negative within 2 years.

Problems of Screening Early

- Squamous cancer of the cervix is exceedingly rare under age 21.
- HPV infections are exceedingly common in women under age 21.
- Diagnosis of self limited HPV infections and transient low grade dysplastic lesions would lead to unnecessary repeat Pap smears and/or colposcopies.

STD Screening and Contraception

- Delaying Pap by three years in sexually active young women does not mean that these women do not need routine gynecologic care.
- They still need
 - STD screening and counseling.
 - Contraceptive counseling.

Why Is Age 21 the “Default” for First Pap?

- Incidence of High Grade SIL increases with age.
- Cervical Cancer is rare in teenagers and young women.
- Cytology screening starting at age 21 would capture most women at risk.
- A 21 year old who has never had vaginal intercourse does not need to be screened for cervical cancer.

Aggressive Screening Until Age 30

- Screening
 - Every year with conventional Pap smears
 - Every two years with liquid based Pap smears
 - According to ACS guidelines
 - According to ACOG yearly screening regardless of the method is recommended

Rationale

- Frequent screening until age 30 allows us to identify and treat young women with histologic cervical intraepithelial neoplasia (CIN II and CIN III or worse) which may progress to cancer.

Pap Screening: Ages 30-65

- Research indicates that it is reasonable to reduce the screening interval from every year to every two to three years in previously well-screened women over age 30.

Rationale

- These women have the protection offered by frequent pap tests during the 20s.
- By the time most women reach their 30s, the area of active squamous metaplasia which serves as the substrate for cervical neoplasia is reduced.

Pap Screening: Ages 30-65

- Both ACOG and ACS recommend annual screening regardless of age if following risk factors are present
 - History of cervical cancer/precancer
 - Immunocompromise (HIV)
 - DES exposure
 - Those not screened well under age 30 should have at least three negative Pap smears

Screening Interval Studies

- Frequent screening would detect very few additional cancers at an exceedingly high cost.
- We can confidently counsel patients that a previously well-screened woman over age 30 who has no history of dysplasia has an exceedingly small risk of cervical cancer, whether her next Pap test is 1, 2 or 3 years after her last.

How Many Cancers Will We Miss?

- In a theoretical cohort of 100,000 women who had at least three consecutive negative pap tests, screening at one year rather than three year intervals would uncover three additional cancers in women aged 30-44, a single additional cancer in women aged 45-59 and no additional cancers in women 60-64 years of age.

Sawaya Study

- To find all three additional cancers in the 30-44 age group, it would require 69,665 Pap tests and 3,861 colposcopies.
- To find the only additional cancer in the 45-59 age group, it would require 209,324 Pap tests and 11,502 colposcopies.

Pap Smears in Older Women

- If an older woman's sexual practices change, consider restarting screening.

Postmenopausal Screening

- Women over 65 do get cervical cancer.
- 25% of new cases of cervical cancer are in women above age 65.
- 41% cervical cancer mortality is in women above age 65.

Postmenopausal Women

- However, incident cases of squamous cancer among older women are seen in those who have not been well screened previously.

Postmenopausal Screening

- An older woman in a long-term monogamous relationship who has a history of frequent negative Pap smears is at such low risk for acquiring cervical cancer that the US Preventive Services Task Force recommends discontinuing screening at age 65.

Postmenopausal Screening

- American Cancer Society recommends discontinuing screening at age 70 in low-risk previously well screened women.
- While acknowledging the recommendations of these other professional organizations, ACOG notes that there is no good evidence to establish an age to discontinue screening.

Postmenopausal Screening

- Heart and estrogen/progestin replacement study:
 - 2,561 women
 - Pap every 1-2 years
 - 110 recalled for follow-ups
 - 231 interventions (repeat Paps, colposcopies, cervical and endometrial biopsies and D&C)
 - Only one woman with histologic moderate dysplasia

Postmenopausal Screening

- Among low risk population, routine Pap screening may lead to:
 - Additional tests
 - Unnecessary cost
 - Anxiety
- Limited value of screening

Screening Women With Hysterectomy

- Since 1996, US Preventive Services Task Force has recommended against Pap screening in women who had uterus and cervix removed for benign reasons.
- A recent study showed as many as 45.6% of such women were still having Pap smears.

Pap Smear in Women Without Cervix

- For any screening procedure to be cost effective, there must be a threshold prevalence of the disease in the population to be screened.

Pap Smear in Women Without Cervix

- While women with prior cervical cancer or high-grade dysplasia remain at increased risk for recurrences at the vaginal cuff, women with no history of such disease are at extremely low risk of cancer.

Pap Smear in Women Without Cervix

- In essence, screening in these women becomes a search for primary vaginal cancer.
- Primary vaginal cancer is very rare—only 0.3% of cancers in women.
- Continued screening in the absence of cervix results in screening an unacceptably large number of women to diagnose a rare cancer.

Pap Smear in Women Without Cervix

- Cytology screening in this group is far more likely to diagnose low grade vaginal intraepithelial neoplasia (VAIN 1) which reflects self-limited epithelial changes that are extremely unlikely to progress to cancer.

HPV Testing

- Hybrid capture DNA 2 assay to detect 13 high-risk HPV subtypes:
 - Triage of ASCUS Pap smears
 - Combined PAP-HPV DNA

PAP-HPV DNA

- A combination Cytology+HPV DNA test
- US FDA approved PAP-DNA in 2003 for use in women over age 30
- Both ACS and ACOG approved the combination test
- Should be used every three years if both tests are negative

PAP-DNA

- PAP-DNA screening in women under 30 is not useful:
 - High prevalence of high-risk HPV in this age group.
 - Results in unacceptably high numbers of women testing positive whose risk of invasive cervical cancer is low.

Women Under 30

- Women under 30 should be screened with Pap smear alone.
- Routine HPV testing is not indicated in this group.

PAP-DNA

- Prevalence of HPV declines after age 30
- PAP-DNA test is valuable in this age group
- High negative predictive value of the combination test

PAP-DNA Test

- Sherman et al determined that the negative predictive value of the combination of cytology plus HPV DNA testing is 99.88% at 33 months.
- At 45 months, it was still 98.84%.

PAP-DNA Test

- Women can be assured that if they test negative on the combination test, their risk of CIN3 or squamous cancer is negligible at least for three years.
- If both cytology and HPV are negative, repeat the test in three years.

PAP-DNA Test

- ASCUS on Pap and HPV positive:
 - Colposcopy
- ASC-H, AGC, LGSIL and HGSIL on Pap
 - Colposcopy even if HPV is negative

Negative Cytology and Positive HPV DNA

- Repeat Pap / HPV DNA in 6-12 months
- If both are negative, resume three year screening
- ASCUS and HPV negative, repeat Pap and HPV in one year
- ASC-H, LGSIL, AGC, HGSIL:
 - Colposcopy
- HPV positive with negative cytology:
 - Colposcopy

Putting New Guidelines Into Practice

- Easier said than done
- Patients need a clear message
- Tell patients:
 - Don't stop annual exams
 - Breast exams and other health related check ups are necessary

Counseling HPV Patients

- Sexually transmitted
- High prevalence: >75% population of reproductive age
- Low risk of cancer for the partner
- Low risk of cervical cancer
- Importance of timely Pap screening

References

- Cervical cancer screening: Revised Guidelines. Mravcak S; The Female patient; Vole 29: December 2004;36-44
- Pap test every Year? Not for every woman; Waxman AG; OBG Management: December 2004. 36-55

Management of Abnormal Pap Smears

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Cervical Cancer

- Pap smear screening resulted in dramatic reduction in cervical cancer.
- The value of accurate screening results can be reduced by loss to follow-up or under-treatment of significant lesions.

Pap Smear Reporting

- Pap system of reporting
- Bethesda 1988 system
- Bethesda 1991 system
- Bethesda 2001 system
- Bethesda 2006 system

Adequate Specimen

- Conventional smear:
 - 8,000-12,000 well visualized cells should be seen
- Liquid-based Pap:
 - 5,000 well visualized cells should be seen
 - Epithelial cells may be obscured by inflammation
 - If > 75% of cells are obscured, it is considered unsatisfactory

Adequacy of Specimen

- Satisfactory specimen contains:
 - 10 well preserved endocervical cells
 - 10 squamous metaplastic cells

Transformation Zone Not Present

- If Pap is otherwise normal, no higher risk of subsequent detection of high grade SIL
- Most women without an endocervical or transformation zone component can be rescreened in 12 months

No T Zone Components

- Repeat testing is recommended for women at higher risk of neoplasia such as:
 - Immunocompromised
 - HPV +
 - Previous abnormal Pap smears
 - Inability to visualize the cervix
 - Insufficient previous screening

Unsatisfactory Pap Smears

- Pap smears that are unsatisfactory need to be repeated in 2-4 months.
- If three consecutive specimens are unsatisfactory, colposcopy is recommended.
- Histologic abnormalities were found in 16% of this population.

Abnormal Pap Smears

- 50-60 million Pap tests per year in the US
- 3.5 million are classified as abnormal and require some form of medical follow-up
- 10,000 new cases of cervical cancer seen each year in the US
- 4,000 deaths from cervical cancer

Abnormal Pap and Cervical Cancer

- Determining which women with abnormal Pap tests are at risk of significant cervical disease and treating them presents a major public health challenge and a multibillion dollar cost to our healthcare system.

Inconclusive Pap Smears

- Almost two million Pap smears each year are classified as “inconclusive”
 - ASC-US, ASC-H and LSIL
- Most of them have no detectable problem
- Less than one fifth of these women have a significant precancerous lesion

Inconclusive Pap Smears

- Although these changes are mild, they may result in:
 - Anxiety
 - Unnecessary medical procedures
 - Extra costs to healthcare system

Abnormal Pap Smears

- Effective cervical cancer prevention requires recognition and treatment of the precursors of invasive cancer.
- The 2001 Bethesda System of nomenclature describes the categories of epithelial cell abnormalities seen on Pap smears.

The 2001 Bethesda System Squamous Cell

- Atypical Squamous Cells
 - ASC-US (undetermined significance)
 - ASC-H (can not exclude HSIL)
- Low-grade squamous intraepithelial lesions
 - Mild dysplasia
 - HPV changes

The 2001 Bethesda System Squamous Cell

- High-grade squamous intraepithelial lesions
 - Moderate and severe dysplasia and carcinoma-in-situ (CIN II and CIN III)
- Squamous cell carcinoma

The 2001 Bethesda System Glandular Cell

- Atypical glandular cells (AGC)
 - Endocervical
 - Endometrial
 - Not otherwise specified (NOS)
- Atypical glandular cells
 - Favor neoplasia
 - Specify endocervical
 - Not otherwise specified (NOS)

The 2001 Bethesda System Glandular Cell

- Endocervical adenocarcinoma in situ (AIS)
- Adenocarcinoma

Precancerous Precursors

- CIN 2, CIN 3, adenocarcinoma in situ (AIS) are collectively referred to as CIN2/3+
- CIN2/3+ need to be identified and treated in a timely manner to prevent invasive cancer
- Cancer precursors include:
 - CIN 3, AIS and to a lesser extent CIN 2

HPV and Abnormal Paps

- The presence of HPV is a marker for the risk of diagnosis of CIN2/3+
- Only 1 in 10 to 1 in 30 HPV infections are associated with abnormal cervical cytology
- Even a smaller proportion are associated with CIN2/3+

HPV

- Among women with negative cytology and a positive HPV test result, only 15% will have abnormal cytology results within five years.
- HPV can express as CIN within months after infection.
- However, the time course from CIN 3 to invasive cancer averages between 8.1 and 12.6 years.

CIN Regression

- Regression for CIN
 - 60% for CIN 1 and 40% for CIN 2

CIN 1

- CIN 1 is the histologic appearance of cells producing HPV
- The goals of cervical cancer screening:
 - Not to prevent CIN
 - But to prevent and treat
 - Early invasive cervical cancer
 - Reduce mortality

Cervical Cancer Screening

- Measures the risk that CIN2/3+ is present
- The risk that CIN2/3+ will subsequently be diagnosed
- These risks define the
 - Intensity of initial evaluation
 - Interval and intensity of follow up

Colposcopy

- Colposcopy with directed biopsy is the technique of choice for evaluation of abnormal Pap smears.
- In 1-10% of cases, lesions more severe than anticipated by biopsy were found on excision.
- 16 missed invasive cancers were found among 1,975 patients undergoing excision.

Colposcopy

- Evaluation of the
 - Cervix and vagina
 - Vulva
- With 10-25 times magnification
- Acetic acid 3-6 % solution used
- Cervix and vagina are evaluated before and after acetic acid is applied

Colposcopy Directed Biopsies

- Single colposcopic examination
 - Very low sensitivity
- Studies indicate that biopsies of all visible lesions are warranted regardless of the colposcopic impression
- Multiple colposcopic evaluations are necessary for persistent low-grade abnormalities or persistently positive HPV

Colposcopy

- The risk of undiagnosed cancer is the major reason for the recommendation of excision for women with unexplained high-grade abnormal cytology results.

Management of Abnormal Pap

- Atypical Squamous Cells:
 - These are cellular changes that are more marked than those attributable to reactive changes but fall short of a definitive diagnosis of Squamous Intraepithelial Lesion
- The risk of cancer and CIN 2/3+ is low
 - 0.1-0.2% for cancer
 - 6.4-11.9% for CIN2/3+

Atypical Squamous Cells

- Options include:
 - Immediate colposcopy
 - Provides rapid diagnosis but expensive
 - HPV DNA testing triage
 - Repeat cytology at 6 and 12 months

HPV Testing for ASCUS

- Reflex testing for high risk HPV using the liquid cytology specimen
 - HPV positive:
 - 15-27% chance of having a CIN2/3+
 - Need colposcopic evaluation
 - HPV negative
 - Less than 2% chance of having a CIN2/3+
 - Annual Pap screening is adequate

HPV Testing

- Hybrid Capture DNA 2 assay for 13 oncogenic HPV sub types
- Performed on the liquid based Pap specimen
- Usually done within three weeks of obtaining the specimen

ASCUS (HPV+) In Adolescents

- The risk of invasive cancer approaches zero in adolescents.
- HPV infections are common and self limiting in adolescents.
- Colposcopic evaluation is not necessary.
- Can be monitored with pap smears at 6 and 12 months.

Adolescents

- Recommendations are similar for ASC and LSIL in adolescent girls.
- LSIL represents HPV infection and most adolescents clear HPV and LSIL.
- Follow up Pap at 6 and 12 months is adequate.

Repeat Pap for ASC Management

- Follow-up with Pap smears may allow some women to avoid colposcopy
 - Waiting 6-12 months can create anxiety
 - May delay the diagnosis
 - Loss to follow-up can be substantial

Repeat Pap for ASC Management

- The ALTS trial reported that a larger number of women who completed both follow-up cytology examinations were referred to colposcopy than those undergoing triage with HPV testing (67% vs 56%)

LSIL

- More frequent in younger populations with larger number of recent partners.
- Represents the appearance of cells that are actively engaged in HPV replication.
- HPV testing is of limited value.

LSIL

- The risk of CIN 2/3+ at initial colposcopy following an LSIL is between 15% and 30%.
- Colposcopy is recommended for these women.
- For adolescents with LSIL, follow up with Pap at 6 and 12 months is reasonable.

ASC-H

- Atypical squamous cells-cannot exclude HSIL (ASC-H)
 - Includes 5-10% of ASC Pap smears
 - CIN2/3+ seen in 24-94% of such cases
 - Immediate colposcopic intervention is necessary
 - HPV testing is not cost effective

Follow Up After Colposcopy

- ASCUS Pap and Negative Colposcopy
 - Repeat Pap in 1 year
- ASC-H and Negative Colposcopy
 - Repeat Pap smears at 6 and 12 months
 - HPV DNA at 12 months
 - Excision is not recommended

Follow Up After Colposcopy

- **LSIL and Negative Colposcopy**
 - Repeat Pap smears at 6 and 12 months
 - HPV DNA at 12 months

HSIL Cytology Results

- **CIN 2 and CIN 3 have been reported in 70% or more cases**
- **Invasive cancer is seen in 1-2% of cases**
- **Colposcopy with endocervical evaluation should be done**
- **Entire vagina should be examined**
- **See and treat approach can be followed if lesion seen**

HSIL on Pap

- **CIN 1 or less on biopsy:**
 - Review of cytology and histology
 - With unsatisfactory colposcopy, excision is recommended
 - Adolescents are exceptions since risk of invasive disease is low
- **Colposcopy and cytology at 4-6 month intervals is recommended as long as colposcopy and endocervical curettage are negative**

Atypical Glandular Cells

- **Histological correlation:**
 - Squamous lesions in 33.7%
 - 2.5% Adenocarcinoma in Situ
 - 1% cervical adenocarcinoma
- **Risk of CIN2/3+ is**
 - 9-41% in AGC smears
 - 27-96% in AGC favor neoplasia
 - 2001 Consensus Guidelines

Atypical Glandular Cells

- **Source of the lesion**
 - Cervix
 - Endocervix
 - Endometrium

Atypical Glandular Cells

- **Evaluation includes:**
 - Colposcopy
 - Endocervical curettage
 - Endometrial sampling
 - With abnormal endometrial cells
 - Women >35 years of age
 - Younger women with abnormal bleeding, morbid obesity and oligomenorrhea

Atypical Glandular Cells: Negative Evaluation

- AGC NOS: repeat Pap and endocervical curettage every 6 months X 4
- AGC: repeat Pap and endocervical sampling at 12 months (provided colpo, ECC and HPV were negative)
- AGC favor neoplasia: excision is warranted
 - Cold knife cone is a good choice

How Should CIN 1 Be Managed?

- Depends on the preferences of the physician and the patient
- For most young women, observation seems appropriate
- Follow up with Pap smear every 6 months X 2
- Colposcopy for an ASC or higher or a positive HPV at 12 months

CIN 2 and 3

- CIN 2 and 3 are recognized potential cancer precursors.
 - CIN 2 is associated with significant spontaneous regression.
 - 40% of CIN 2 cases regress over two years.
- Immediate treatment of CIN 2 and CIN 3 with excision or ablation is recommended in non-pregnant patients.

CIN 2 In Adolescents

- Care of the adolescent with CIN 2 may be individualized
- Treatment may be deferred
- Close follow up with Pap and colposcopy may be adequate

Excision v. Ablation

- A large body of evidence indicates that rates for the clearance of squamous dysplasia of all grades are the same for laser therapy, LEEP, and cryotherapy.
- Endocervical sampling before ablation is recommended to avoid unrecognized invasive cancer.

Management Of AIS

- Cold-knife conization is recommended to preserve specimen orientation and permit optimal interpretation of histology and margin status.
- LEEP is not recommended.

Hysterectomy for CIN 2/3+

- Hysterectomy is not the initial treatment of choice for CIN 2 or 3.
 - May be considered for persistent or recurrent CIN 2 or 3.

Abnormal Pap In Pregnancy

- ASC or LSIL: Colposcopy during pregnancy or at 6-12 weeks postpartum
- ASC-H: Immediate colposcopy
- HSIL: Immediate colposcopy
- AGC: Immediate colposcopy
- No endocervical sampling is done during pregnancy

Pregnancy

- CIN is not treated in pregnancy
- Excision should be considered if lesion is suspicious for invasive cancer
- Repeat colposcopic evaluation is done during pregnancy as needed
- Reassessment by colposcopy 6-12 weeks postpartum

Pregnancy

- Biopsies should be done only as needed in pregnancy to avoid unnecessary bleeding.
- The purpose of biopsy in these women is only to exclude invasive cancer.

Treatment Modalities For CIN

- Cryotherapy
- Laser ablation
- LEEP
- Cold knife cone biopsy
- Cryotherapy or laser ablation are done only when endocervical pathology is ruled out

See and Treat Approach

- During colposcopic evaluation, when significant abnormality is found, LEEP is performed to both evaluate and treat the precancerous condition.

Reference

- **ACOG Practice Bulletin: Clinical Management Guidelines for Obstetrician-Gynecologists Number 66, September 2005**

Upcoming Programs

Perspectives on Suicide Prevention: What School Counselors Need to Know
Tuesday, February 20, 2007
1:00 - 3:00 p.m. (Central Time)

Suicide Prevention and Risk Reduction: What Mental Health Practitioners Need to Know
Thursday, February 22, 2007
1:00 - 3:00 p.m. (Central Time)

For complete list of upcoming programs visit our website at www.adph.org/alphn