

Cervical Cancer

Topic- based Uworld Questions

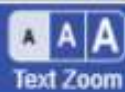
Block 1, 2, 7, 8



A 53-year-old woman comes to the emergency department due to heavy vaginal bleeding. The bleeding started yesterday as dark brown vaginal spotting and has increased to now soaking a thick menstrual pad every 2 hours. Menarche was at age 14. Menopause was at age 45 and the patient has had no prior episodes of vaginal bleeding since then. She smoked half a pack of cigarettes daily for 20 years; she does not use alcohol or illicit drugs. The patient's mother died of breast cancer at age 77. Blood pressure is 110/70 mm Hg and pulse is 94/min. BMI is 37 kg/m². The abdomen is obese, soft, and nontender, with no rebound or guarding. Pelvic examination shows dark red blood in the posterior vaginal vault and a 3-cm friable mass on the ectocervix and extending laterally. The lesion is actively bleeding. Hemoglobin is 10.2 g/dL. Pelvic ultrasonography reveals a thin endometrial stripe and no adnexal masses. Which of the following is a risk factor for this patient's condition?

- A. Chronic anovulation
- B. Delayed menarche
- C. Early menopause
- D. Endometriosis
- E. Family history
- F. Obesity
- G. Tobacco use
- H. Use of progestin intrauterine device

Submit



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- A. Chronic anovulation (3%)
- B. Delayed menarche (0%)
- C. Early menopause (2%)
- D. Endometriosis (2%)
- E. Family history (2%)
- F. Obesity (18%)
- G. Tobacco use (69%)
- H. Use of progestin intrauterine device (1%)

Omitted

Correct answer

G



69%

Answered correctly



07 mins, 21 secs

Time Spent



02/02/2020

Last Updated

Explanation

Risk factors for cervical cancer

- Infection with high-risk HPV strains (eg, 16, 18)
- History of sexually transmitted diseases
- Early onset of sexual activity
- Multiple or high-risk sexual partners
- Immunosuppression
- Oral contraceptive use
- Low socioeconomic status
- Tobacco use

HPV= human papillomavirus.

This patient has **heavy vaginal bleeding** and a laterally extending, **friable cervical mass** that is concerning for advanced-stage **cervical cancer**. Cervical cancer is caused by persistent infection with **high-risk human papilloma virus** types 16 and 18. **Tobacco use** is another major risk factor for squamous cell cervical cancer and, with human papilloma virus infection, exerts oncogenic effects on the cervix through impaired immunity. Additional risk factors include early onset of sexual activity, multiple sexual partners, and immunosuppression (eg, HIV infection, chronic glucocorticoid use). After the diagnosis of invasive cervical carcinoma is confirmed by direct biopsy, treatment is with excision, radiation, or chemotherapy, depending on disease extent.

(Choices A, F, and H) Although endometrial cancer can present with postmenopausal bleeding, a lesion on the ectocervix is consistent with a cervical, rather than an endometrial, malignancy. Endometrial cancer is excluded when a thin endometrium is viewed on ultrasound. Chronic anovulation and obesity increase the risk of endometrial cancer due to unopposed estrogen stimulation of the endometrium. Progesterone (eg, oral contraceptives, progestin intrauterine device) stimulates differentiation of the endometrial cells and prevents endometrial hyperplasia/cancer.

(Choices B, C, D, and E) Ovarian cancer typically presents with an adnexal mass, and advanced disease can cause ascites. Endometriosis and

- Tobacco use

HPV= human papillomavirus.

This patient has **heavy vaginal bleeding** and a laterally extending, **friable cervical mass** that is concerning for advanced-stage **cervical cancer**. Cervical cancer is caused by persistent infection with **high-risk human papilloma virus** types 16 and 18. **Tobacco use** is another major risk factor for squamous cell cervical cancer and, with human papilloma virus infection, exerts oncogenic effects on the cervix through impaired immunity. Additional risk factors include early onset of sexual activity, multiple sexual partners, and immunosuppression (eg, HIV infection, chronic glucocorticoid use). After the diagnosis of invasive cervical carcinoma is confirmed by direct biopsy, treatment is with excision, radiation, or chemotherapy, depending on disease extent.

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(Choices B, C, D, and E) Ovarian cancer typically presents with an adnexal mass, and advanced disease can cause ascites. Endometriosis and family history are risk factors. The risk of ovarian cancer is decreased by delayed menarche and early menopause.

Educational objective:

Advanced cervical cancer may present as vaginal bleeding with a cervical lesion. Smoking is a risk factor for squamous cell cervical carcinoma.

References

- [Association between occupational history of exposure to tobacco dust and risk of carcinoma cervix: a case-control study.](#)

Obstetrics & Gynecology

Subject

Female Reproductive System & Breast

System

Cervical cancer

Topic

A 37-year-old woman comes to the office for evaluation of abnormal vaginal discharge. She noticed increased clear, watery vaginal discharge 4 months ago and now has intermenstrual bleeding. She reports no pruritus or dysuria. The patient is sexually active with a male partner and uses condoms for contraception. She has had 5 lifetime sexual partners. She has no medical problems or previous surgeries. The patient has a 24-pack-year smoking history but does not use alcohol or illicit drugs. Blood pressure is 120/70 mm Hg and pulse is 88/min. On pelvic examination, a raised, ulcerative lesion is noted on the cervix, and clear discharge is present. The vaginal mucosa is not erythematous and has no lesions. The uterus is small, mobile, and anteverted, with no adnexal masses or cervical motion tenderness. No inguinal lymphadenopathy is present. Which of the following is the best next step in the diagnosis of this patient's condition?

- A. Cervical biopsy
- B. Herpes simplex viral culture
- C. Nucleic acid amplification testing for gonorrhea and chlamydia
- D. Pelvic ultrasonography
- E. Wet mount of cervical mucus

Submit



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- A. Cervical biopsy (77%)
- B. Herpes simplex viral culture (3%)
- C. Nucleic acid amplification testing for gonorrhea and chlamydia (11%)
- D. Pelvic ultrasonography (1%)
- E. Wet mount of cervical mucus (5%)

OmittedCorrect answer
A77%
Answered correctly02 secs
Time Spent01/27/2020
Last Updated

Explanation

Progression of cervical cancer

Progression of cervical cancer

Carcinoma in situ



Early stage



Advanced stage



Cervical cancer is most commonly asymptomatic and detected only during screening. When symptoms do occur, as in this patient, they can include **vaginal discharge**, postcoital or **intermenstrual bleeding**, and a **cervical lesion**. Lesions suspicious for malignancy (eg, ulcerative, friable, raised), particularly in patients with risk factors (eg, long-term tobacco use), require a **cervical biopsy**. Advanced cervical cancer may present with symptoms of local invasion, including a large vascular cervical mass with heavy vaginal bleeding.

(Choice B) Genital herpes typically presents as vesicular or ulcerating lesions on the vulva or vagina with tender lymphadenopathy; it is diagnosed using a herpes simplex viral culture. Cervical ulcers alone are not typical and suggest another etiology.

(Choice C) Gonorrhea and chlamydia infections can present with purulent cervical discharge and cervical motion tenderness; they do not cause ulcerative, indurated cervical lesions, so nucleic acid amplification testing is not indicated in this patient.

(Choice D) Pelvic ultrasonography may be used to evaluate the endometrium, uterine shape and size, and the adnexa. It is not indicated in the evaluation of a visible cervical lesion.

(Choice E) Vaginal discharge is a nonspecific symptom, and a cervical lesion suggests an etiology other than vaginitis (eg, trichomoniasis, bacterial vaginosis). Wet mount is used to diagnosis vaginitis but is not indicated in this patient due to the visible cervical lesion.

Educational objective:

Cervical cancer may present with irregular bleeding, vaginal discharge, and a visible raised cervical lesion. Immediate biopsy is necessary to confirm the diagnosis.

References

- [Locally advanced cervical cancer: what is the standard of care?](#)

Obstetrics & Gynecology

Subject

Female Reproductive System & Breast

System

Cervical cancer

Topic

A 38-year-old woman comes to the office for follow-up of her first abnormal Pap test result. She has no chronic medical conditions, and her only surgery was a tubal ligation after the birth of her second child. The patient does not use tobacco, alcohol, or illicit drugs. Last month, Pap testing revealed a high-grade squamous epithelial lesion. She then underwent a colposcopy, which confirmed high-grade cervical intraepithelial neoplasia (CIN) 3. Cervical conization was performed, and the pathology report showed CIN 3, with all surgical margins free of disease. Which of the following is the best next step in management of this patient?

- A. Endocervical curettage
- B. Hysterectomy
- C. No further Pap testing
- D. Pap and HPV cotesting at 1 and 2 years
- E. Pap testing alone in 3 years

Submit

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- A. Endocervical curettage (6%)
- B. Hysterectomy (5%)
- C. No further Pap testing (2%)
- D. Pap and HPV cotesting at 1 and 2 years (75%)
- E. Pap testing alone in 3 years (11%)

Omitted

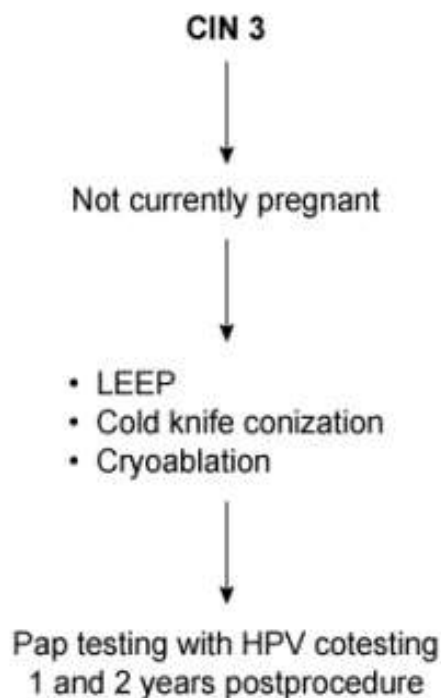
Correct answer
D75%
Answered correctly01 sec
Time Spent06/14/2020
Last Updated

Explanation

Management of CIN 3

CIN 3

Management of CIN 3



CIN 3 = cervical intraepithelial neoplasia 3;
LEEP = loop electrosurgical excision procedure;
HPV = human papillomavirus.

©UWorld

Cervical intraepithelial neoplasia (CIN) 3 is a high-grade cervical dysplasia associated with human papillomavirus (HPV) infection, particularly the high-risk oncogenic strains (types 16, 18). Patients with CIN 3 require **cervical conization**, which is a diagnostic (ie, evaluation for invasive cancer) and therapeutic (ie, excision of dysplastic lesion) **procedure**. The excised specimen is assessed for depth of invasion and surgical

Cervical intraepithelial neoplasia (CIN) 3 is a high-grade cervical dysplasia associated with human papillomavirus (HPV) infection, particularly the high-risk oncogenic strains (types 16, 18). Patients with CIN 3 require **cervical conization**, which is a diagnostic (ie, evaluation for invasive cancer) and therapeutic (ie, excision of dysplastic lesion) **procedure**. The excised specimen is assessed for depth of invasion and surgical margins (ie, whether all dysplasia was removed).

In patients without invasive cancer, management is based on surgical margins:

- Patients with positive surgical margins have residual cervical dysplasia that can progress to cancer. Therefore, these patients require additional surgical excision with either repeat conization (if future fertility is desired) or hysterectomy (if no future fertility is desired) (**Choice B**).
- In contrast, those with **negative surgical margins**, such as this patient, have no evidence of residual dysplasia. However, because these patients have **persistent HPV infection** that has caused prior high-grade disease, they are at **high risk for recurrent cervical dysplasia** and cancer. Therefore, these patients require more frequent cervical cancer screenings with repeat **Pap and HPV cotesting at 1 and 2 years**.

(Choice A) Endocervical curettage is performed for an unsatisfactory colposcopy (ie, entire transformation zone not visualized) or atypical glandular cells on cervical cancer screening. This patient underwent conization, which excised the entire transformation zone; therefore, she does not require further endocervical sampling.

(Choices C and E) Delay in follow-up (eg, no further Pap testing, Pap testing alone in 3 years) increases this patient's risk of developing recurrent cervical dysplasia and/or progression to cervical cancer.

Educational objective:

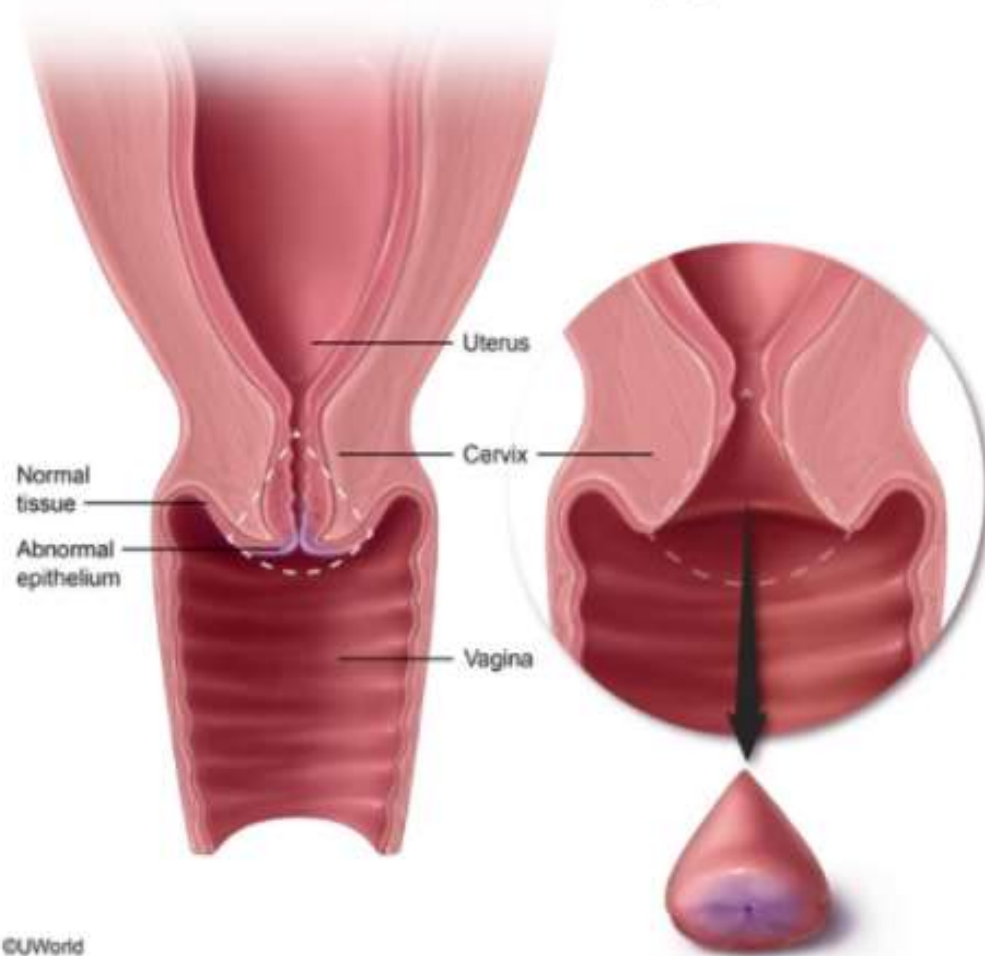
Patients who undergo cervical conization for cervical intraepithelial neoplasia 3 and have surgical margins free of disease remain at risk for recurrent dysplasia and cancer. Therefore, these patients require more frequent cervical cancer screenings with repeat Pap and HPV cotesting at 1 and 2 years.

References

- 2012 updated consensus guidelines for the management of abnormal cervical cancer screening tests and cancer precursors.

Exhibit Display

Cervical cone biopsy



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A 26-year-old nulligravid woman comes to the office to discuss treatment of cervical intraepithelial neoplasia 3, which was revealed on a Pap test 4 weeks ago and confirmed by colposcopic biopsies. The patient has one dose remaining of catch-up human papillomavirus vaccination. She has smoked a pack of cigarettes daily for 10 years and does not use alcohol or illicit drugs. The patient recently married and is planning to have children in the next few years. She currently receives progesterone injections for contraception and takes no other medications. Her father is currently undergoing chemotherapy for pancreatic cancer. Risks and benefits of treatment options are discussed. Which of the following is the most likely complication of treatment for this patient?

- A. Asherman syndrome
- B. Cervical stenosis
- C. Sexual dysfunction
- D. Thromboembolism
- E. Urinary tract injury
- F. Urogenital fistula

Submit

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- A. Asherman syndrome (7%)
- B. Cervical stenosis (75%)
- C. Sexual dysfunction (4%)
- D. Thromboembolism (6%)
- E. Urinary tract injury (2%)
- F. Urogenital fistula (3%)

Omitted

Correct answer

B



75%

Answered correctly



03 secs

Time Spent



03/23/2020

Last Updated

Explanation

Cervical conization

Cervical conization	
Indications	Cervical intraepithelial neoplasia grades 2 & 3*
Complications	<ul style="list-style-type: none"> • Cervical stenosis • Preterm birth • Preterm premature rupture of membranes • Second trimester pregnancy loss

*Observation preferred for cervical intraepithelial neoplasia 2 in young women.

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Human papillomavirus infection and tobacco use are important risk factors for **cervical intraepithelial neoplasia (CIN)** and squamous cell carcinoma (SCC). **Colposcopy** is the gold standard method of diagnosing CIN. CIN 3 is a premalignant cervical lesion at high risk of progressing to SCC, and **cervical conization**, excision of the intact transformation zone, is the recommended treatment. Cervical conization may be performed with a scalpel (**cold knife conization**) or via electrocautery, also known as a loop electrosurgical excision procedure (**LEEP**).

Cervical stenosis, an abnormal stricture of the cervical canal, is a potential complication of cervical conization due to scar tissue. Cervical stenosis may impede menstrual flow and cause secondary dysmenorrhea or amenorrhea. The obstruction of the cervical outlet may prevent sperm entry, resulting in impaired fertility.

Cervical conization carries additional risks, including **cervical incompetence** and **preterm delivery** due to weakened cervical stroma. These risks are related directly to the amount of cervical tissue removed.

(Choice A) Asherman syndrome refers to the formation of intrauterine adhesions from infection (eg, severe endometritis) or intrauterine surgical interventions (eg, dilation and curettage, endometrial ablation, endometrial resection). It is not a complication of cervical conization as the procedure does not involve the endometrium.

(Choice C) Cervical surgery is not associated with sexual dysfunction. However, episiotomy and/or obstetric vaginal lacerations may result in

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(Choice C) Cervical surgery is not associated with sexual dysfunction. However, episiotomy and/or obstetric vaginal lacerations may result in temporary entry dyspareunia.

(Choice D) Thromboembolism may result from immobility from major surgical interventions. However, brief ambulatory procedures, such as cervical conization, do not limit mobility.

(Choice E) Urinary tract injury (eg, ureteral ligation/transection, cystotomy) may result from pelvic (hysterectomy) or vaginal surgery but not a LEEP.

(Choice F) **Urogenital fistula** may result from obstetric trauma, urogenital malignancy, pelvic irradiation, or pelvic surgery (eg, hysterectomy), not from local cervical procedures.

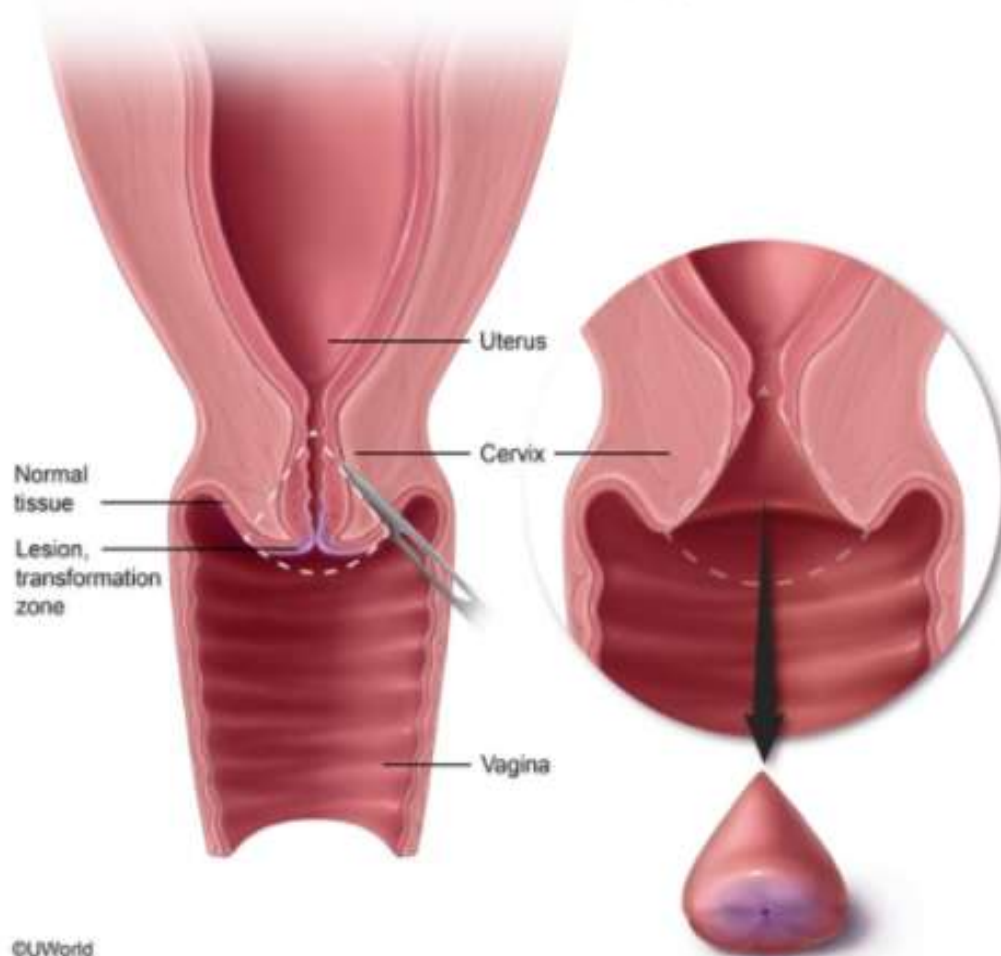
Educational objective:

Cervical conization is used to treat high-grade cervical intraepithelial neoplasia. Potential complications include cervical stenosis, cervical incompetence, and preterm delivery.

Human papillomavirus infection and tobacco use are important risk factors for **cervical intraepithelial neoplasia (CIN)** and squamous cell

Exhibit Display

Cervical cone biopsy



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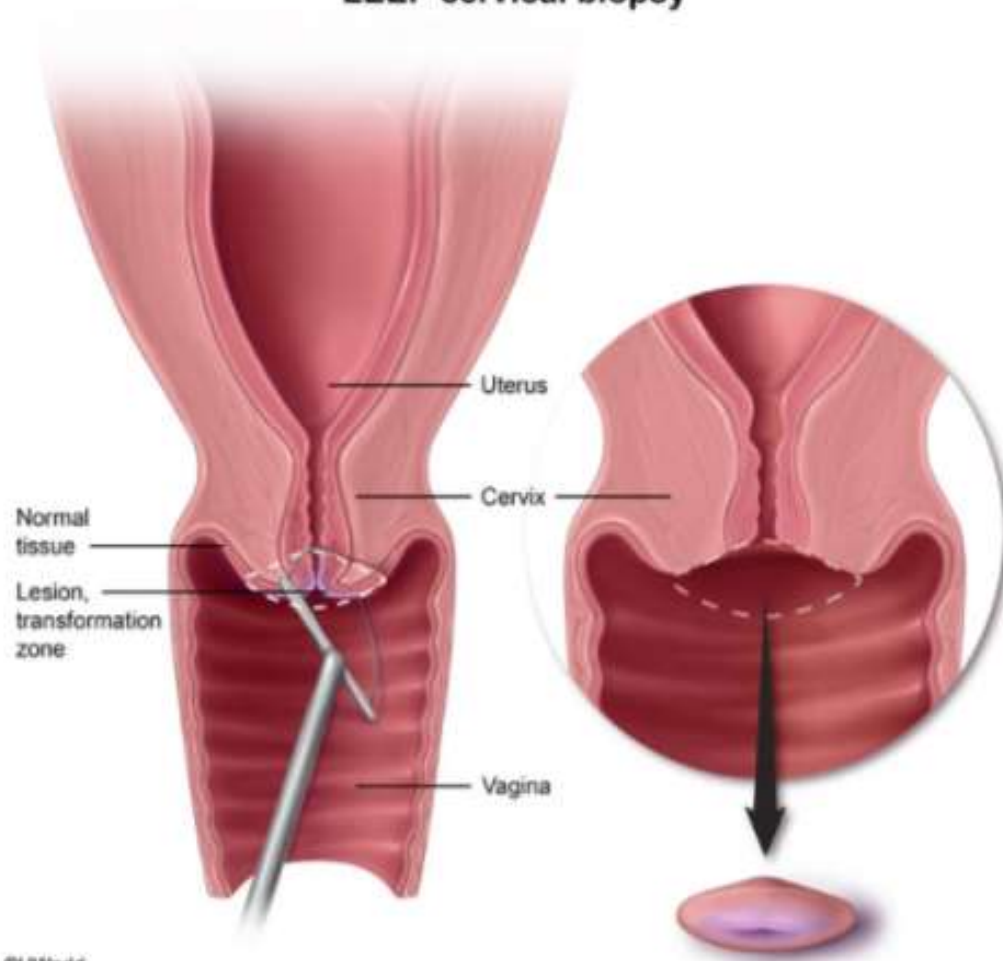
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Human papillomavirus infection and tobacco use are important risk factors for **cervical intraepithelial neoplasia (CIN)** and squamous cell

Exhibit Display

LEEP cervical biopsy

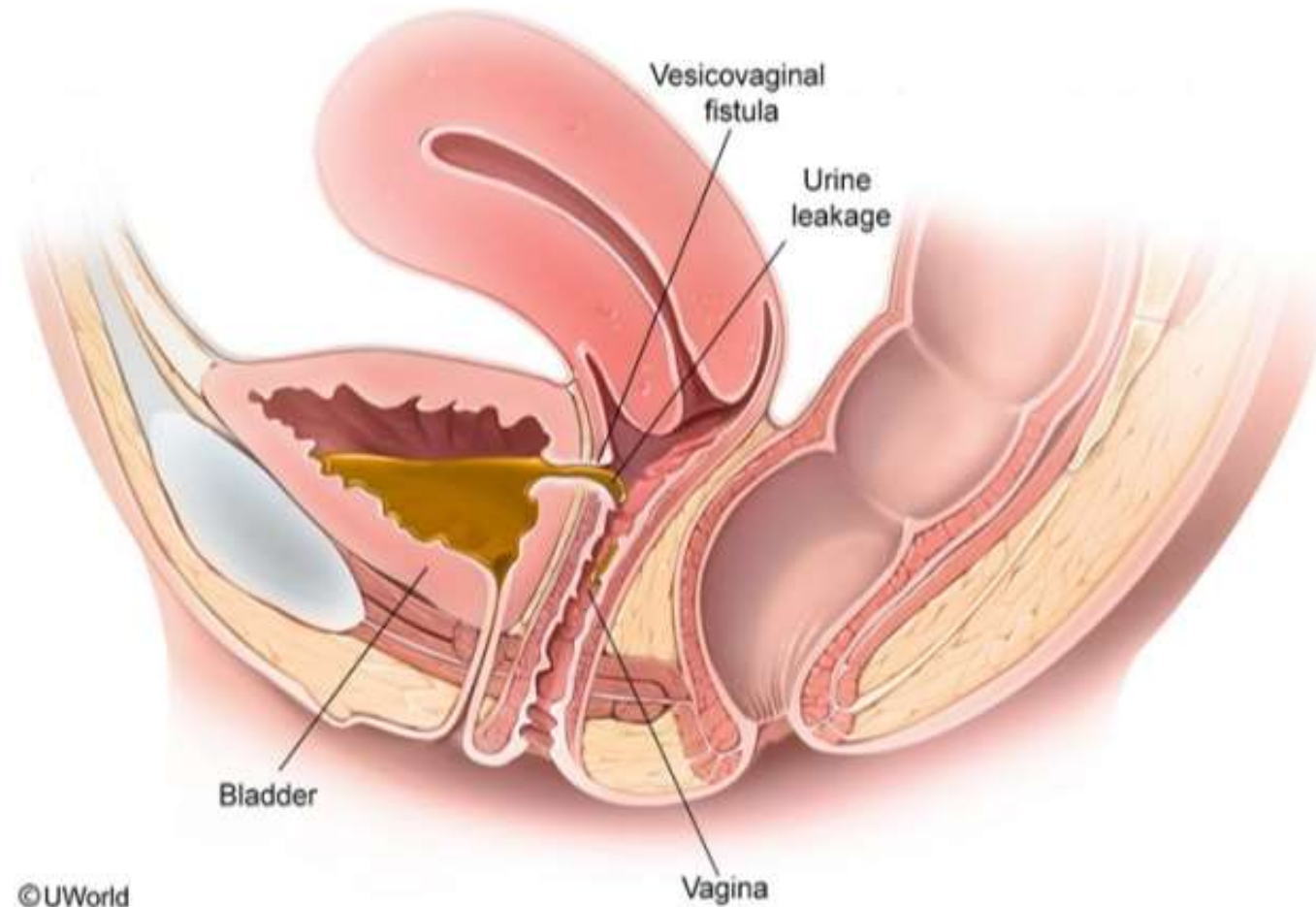


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Human papillomavirus infection and tobacco use are important risk factors for **cervical intraepithelial neoplasia (CIN)** and squamous cell

Exhibit Display

Vesicovaginal fistula



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A 31-year-old woman comes to the office for follow-up of a high-grade squamous intraepithelial lesion found on a recent Pap test. A Pap test 6 years ago was normal, and the patient did not receive screening in the interim. Her last menstrual period was 2 weeks ago, with menses occurring every 28 days and lasting 4 days. The patient is sexually active with her husband and takes an oral contraceptive. She became sexually active at age 14 and has had 7 sexual partners. The patient had a full-term vaginal delivery at age 20. She has a history of genital herpes, and the last outbreak was several months ago. The patient has no other medical issues or previous surgeries. She does not use tobacco, alcohol, or illicit drugs. Blood pressure is 110/70 mm Hg and pulse is 72/min. BMI is 24 kg/m². A colposcopic examination is performed and a biopsy is taken. Pathology report of the biopsy shows cervical intraepithelial neoplasia grade 3. Which of the following is the best next step in management of this patient?

- A. Cervical conization
- B. Human papillomavirus co-testing
- C. Hysterectomy
- D. Repeat colposcopy in 6 months
- E. Repeat Pap test in 12 months

Submit

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- A. Cervical conization (82%)
- B. Human papillomavirus co-testing (7%)
- C. Hysterectomy (7%)
- D. Repeat colposcopy in 6 months (2%)
- E. Repeat Pap test in 12 months (0%)

Omitted

Correct answer

A



82%

Answered correctly



01 sec

Time Spent

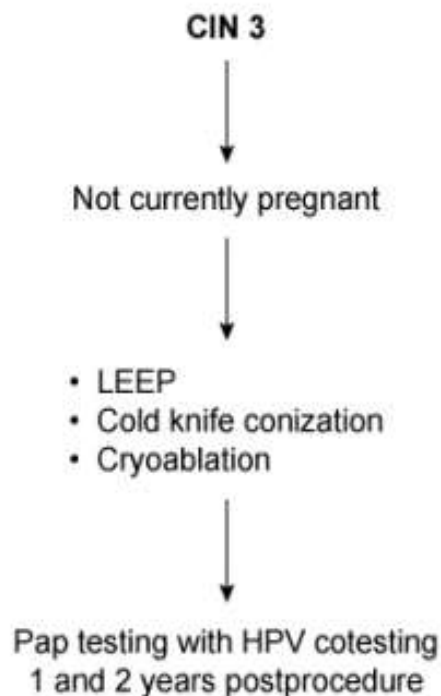


05/19/2020

Last Updated

Explanation

Management of CIN 3



CIN 3 = cervical intraepithelial neoplasia 3;
LEEP = loop electrosurgical excision procedure;
HPV = human papillomavirus.

©UWorld

This patient has multiple risk factors for cervical cancer, including early onset of sexual activity, oral contraceptive use, and multiple sexual partners. The patient had an abnormal Pap test with high-grade squamous intraepithelial lesions (HSILs) and underwent evaluation with colposcopy and cervical biopsy, which revealed a histologic diagnosis of **cervical intraepithelial neoplasia 3 (CIN3)**, a high-grade dysplastic lesion of the squamous epithelium. All nonpregnant patients age >25 with CIN3 require excision of the transformation zone (eg, [cone biopsy](#)) due to the high risk of progression to **invasive squamous cell cervical carcinoma**.

Cervical conization is both a diagnostic and therapeutic procedure, typically removing the entire lesion and allowing for examination of the full



Previous



Next



Full Screen



Tutorial



Lab Values



Notes



Calculator



Reverse Color



Text Zoom

LEEP = loop electrostergical excision procedure.

HPV = human papillomavirus.

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This patient has multiple risk factors for cervical cancer, including early onset of sexual activity, oral contraceptive use, and multiple sexual partners. The patient had an abnormal Pap test with high-grade squamous intraepithelial lesions (HSILs) and underwent evaluation with colposcopy and cervical biopsy, which revealed a histologic diagnosis of **cervical intraepithelial neoplasia 3 (CIN3)**, a high-grade dysplastic lesion of the squamous epithelium. All nonpregnant patients age >25 with CIN3 require excision of the transformation zone (eg, **cone biopsy**) due to the high risk of progression to **invasive squamous cell cervical carcinoma**.

Cervical conization is both a diagnostic and therapeutic procedure, typically removing the entire lesion and allowing for examination of the full depth of invasion. Treatment for invasive carcinoma includes hysterectomy, radiation, and chemotherapy, depending on disease stage (**Choice C**). If the specimen margins are clear of disease and no evidence of invasion is found, Pap testing with HPV co-testing in 1 and 2 years postprocedure is required.

(**Choice B**) Human papillomavirus (HPV) co-testing is performed to triage low-grade abnormalities on Pap testing, including atypical squamous cells of undetermined significance and low-grade squamous intraepithelial lesions (LSILs), which may or may not be due to HPV infection. However, HPV infection is the cause of the high-grade lesions on Pap tests; therefore, HPV co-testing is not performed. Further evaluation of HSIL results is required with colposcopy and biopsy - regardless of presence or absence of HPV - due to the risk of malignancy.

(**Choices D and E**) Repeat colposcopy in 6 months and a repeat Pap test in 12 months are not appropriate as HSILs typically progress; delays in treatment lead to more invasive disease.

Educational objective:

Cervical intraepithelial neoplasia 3 is a high-grade, premalignant lesion that requires treatment with cervical conization, a type of excisional biopsy.

References

- [Meta-analysis of cold-knife conization versus loop electrostergical excision procedure for cervical intraepithelial neoplasia.](#)

Obstetrics & Gynecology

Subject

Female Reproductive System & Breast

System

Cervical cancer

Topic

A 29-year-old woman comes to the office for a colposcopy after a cervical cancer screening last week revealed abnormal intraepithelial lesions. The patient feels well and has had no abnormal vaginal bleeding or discharge. She has no chronic medical conditions and has had no prior surgery. The patient's only medication is an oral contraceptive. She does not use tobacco, alcohol, or illicit drugs. BMI is 23 kg/m². On colposcopy, the squamocolumnar junction is not completely visualized, and an ectocervical biopsy reveals cervical intraepithelial neoplasia (CIN)

1. An endocervical curettage shows CIN 3. Which of the following is the best next step in management of this patient?

- A. Cervical conization
- B. Endometrial biopsy
- C. Repeat Pap and human papillomavirus cotesting in 3 months
- D. Routine Pap testing in 3 years
- E. Topical trichloroacetic acid

Submit

A 29-year-old woman comes to the office for a colposcopy after a cervical cancer screening last week revealed abnormal intraepithelial lesions. The patient feels well and has had no abnormal vaginal bleeding or discharge. She has no chronic medical conditions and has had no prior surgery. The patient's only medication is an oral contraceptive. She does not use tobacco, alcohol, or illicit drugs. BMI is 23 kg/m². On colposcopy, the squamocolumnar junction is not completely visualized, and an ectocervical biopsy reveals cervical intraepithelial neoplasia (CIN)

1. An endocervical curettage shows CIN 3. Which of the following is the best next step in management of this patient?

- A. Cervical conization (86%)
- B. Endometrial biopsy (9%)
- C. Repeat Pap and human papillomavirus cotesting in 3 months (2%)
- D. Routine Pap testing in 3 years (0%)
- E. Topical trichloroacetic acid (1%)

Omitted

Correct answer

A



86%

Answered correctly



02 secs

Time Spent



07/01/2020

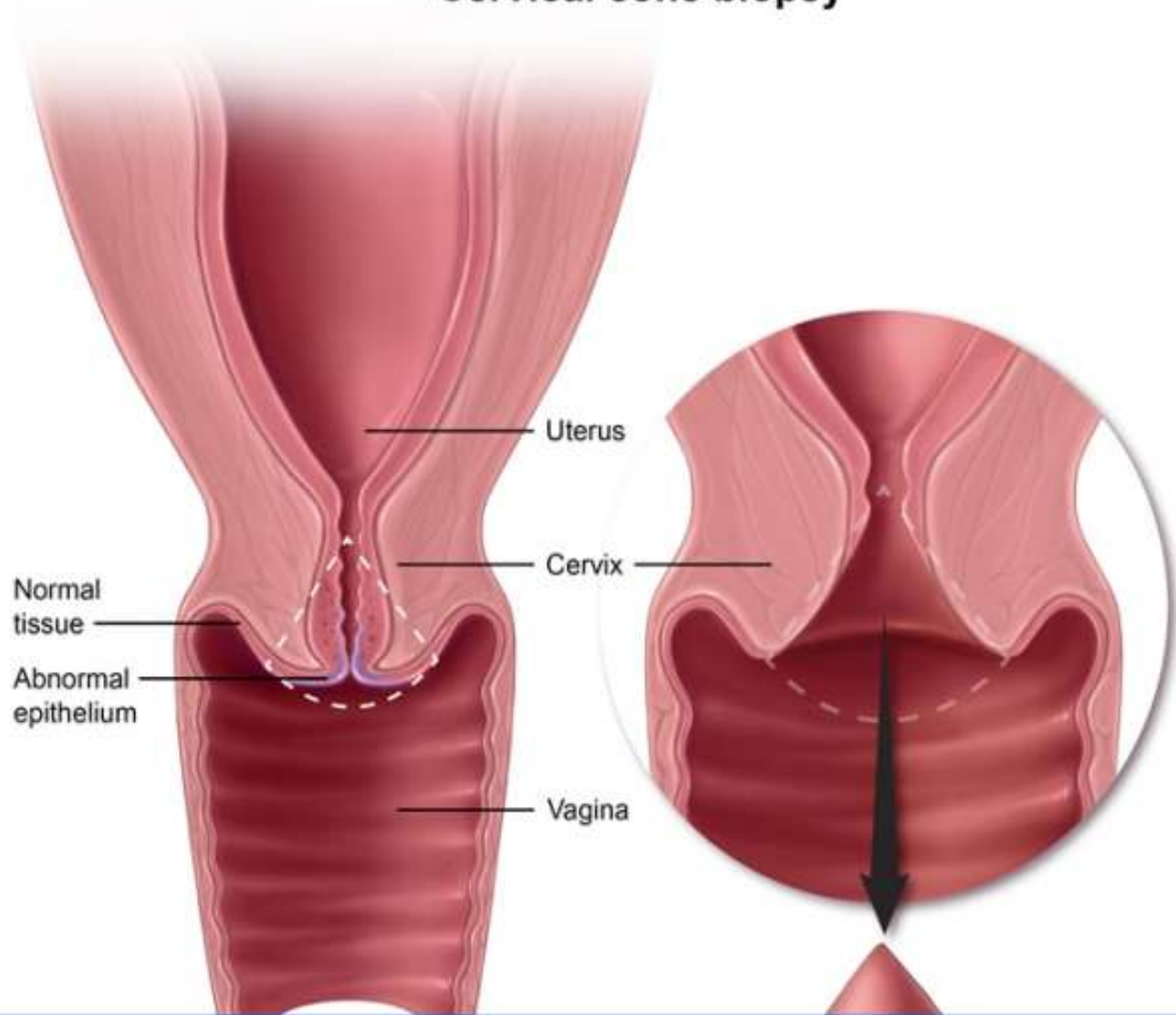
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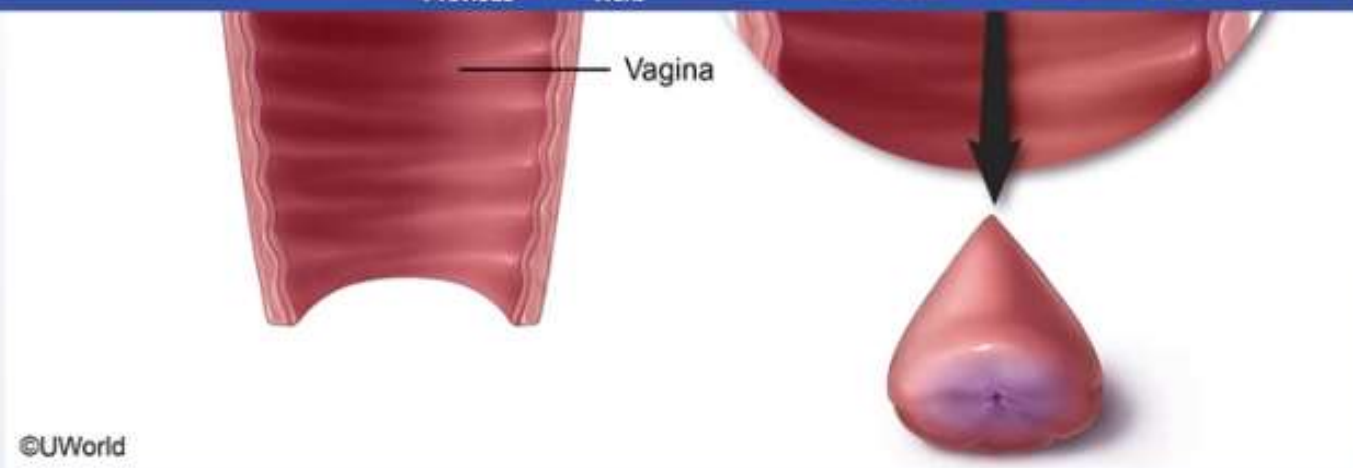
Explanation

Cervical cone biopsy



Cervical cone biopsy





Colposcopy, which provides an illuminated and magnified view of the vulva, vagina, and cervix, can identify precancerous cervical lesions (eg, cervical intraepithelial neoplasia [CIN]); it is performed in patients with abnormal cervical cancer screening results. However, patients with an unsatisfactory colposcopy (ie, squamocolumnar junction not completely visualized) require a concomitant endocervical curettage (ie, sampling of the endocervical canal) to fully evaluate the cervix for lesions.

In this patient, colposcopy with ectocervical biopsy showed CIN 1 (low risk of cancer progression); however, the results were unsatisfactory because the squamocolumnar junction was not completely visualized. Therefore, endocervical curettage was performed; it revealed high-grade **CIN 3**, a **high-risk precancerous lesion** with a 15%-40% risk of progression to invasive cancer. CIN 3 is also a significant risk factor for **concurrent invasive cervical cancer**. Therefore, treatment of CIN 3 (whether in the endo- or ectocervix) is with immediate **cervical conization**. Cervical conization is both a diagnostic and a therapeutic procedure, typically removing the entire lesion and allowing for examination of the full depth of invasion.

Management after conization depends on pathology results: If there is no evidence of invasive cancer and the specimen margins are free of disease (ie, all CIN removed), management is with Pap testing and human papillomavirus cotesting at 1 and 2 years. In contrast, patients with invasive cancer or margins with residual CIN require additional treatment.

(Choice B) **Endometrial biopsy** is indicated in patients with abnormal uterine bleeding to evaluate for endometrial cancer. This patient has no

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(Choice B) **Endometrial biopsy** is indicated in patients with abnormal uterine bleeding to evaluate for endometrial cancer. This patient has no abnormal bleeding and is at low risk for endometrial cancer (eg, normal BMI, oral contraceptive use).

(Choices C and D) Patients with CIN 3 require a prompt excisional biopsy (ie, cervical conization) due to the high risk of concurrent invasive cancer and/or progression to cancer if management is delayed. Therefore, repeat Pap testing in several months or years is inappropriate.

(Choice E) Topical trichloroacetic acid can treat anogenital warts; however, it is not used to treat high-grade cervical intraepithelial lesions.

Educational objective:

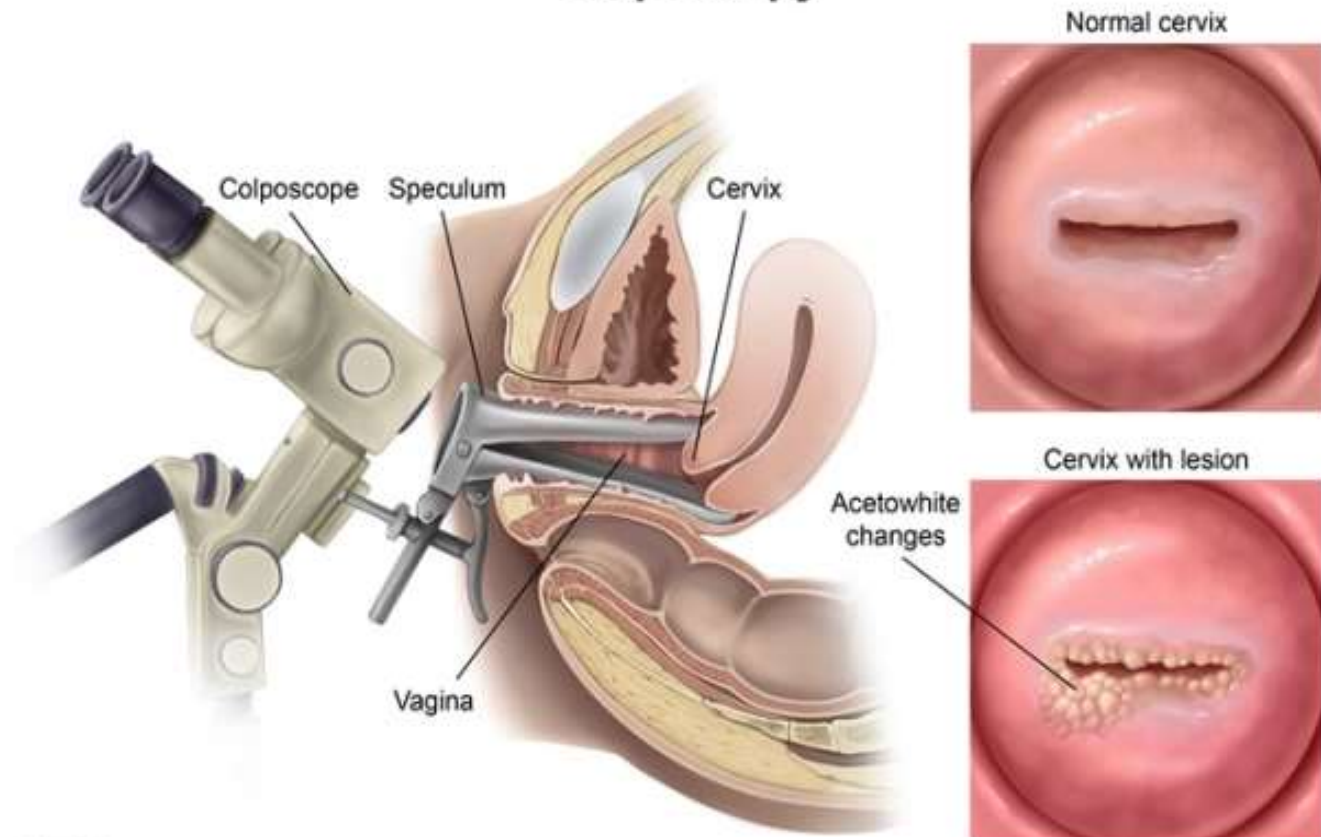
Patients with cervical intraepithelial neoplasia 3 on biopsy (eg, endocervical curettage) require cervical conization, a type of excisional biopsy, due to the high risk of concurrent invasive cervical cancer and/or progression to cancer.

References

- [2012 updated consensus guidelines for the management of abnormal cervical cancer screening tests and cancer precursors.](#)

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Colposcopy



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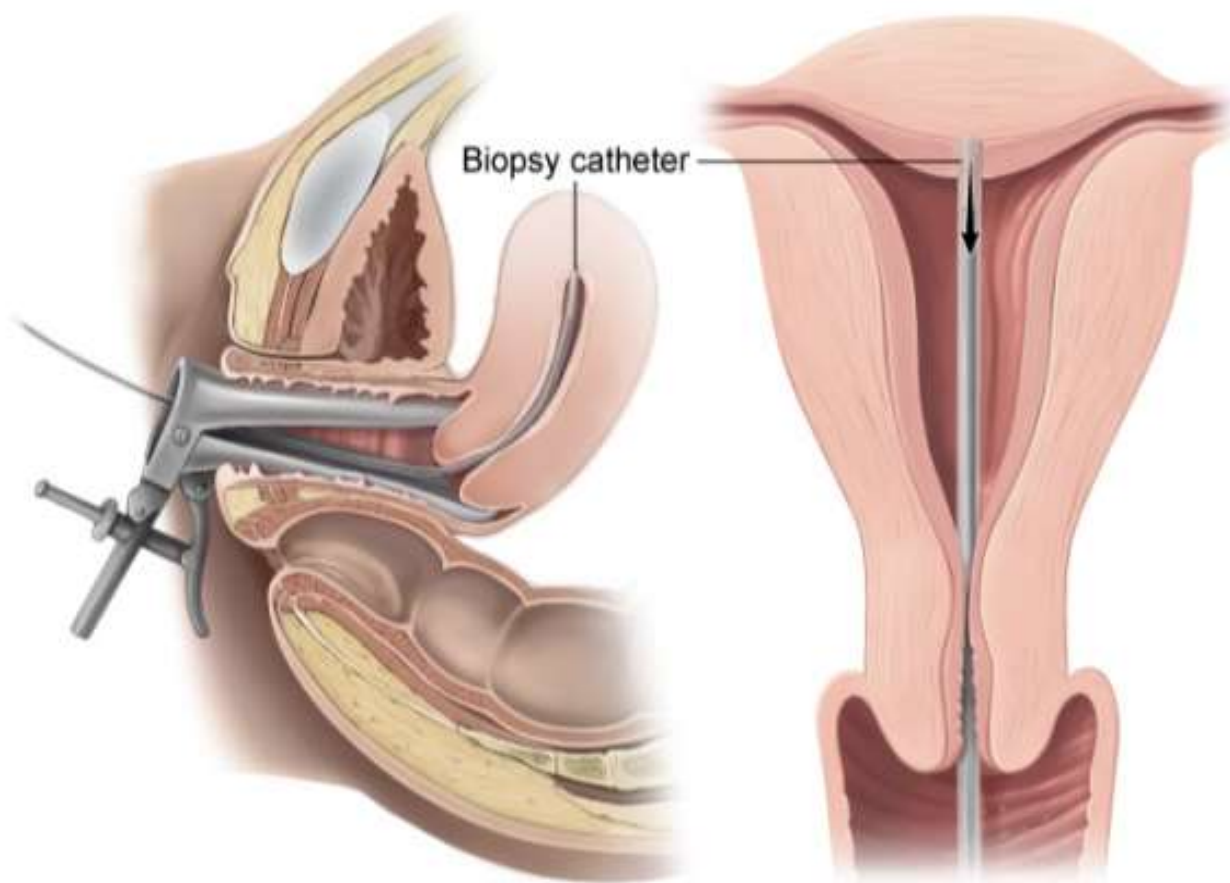
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Patients with cervical intraepithelial neoplasia 3 on biopsy (eg, endocervical curettage) require cervical conization, a type of excisional biopsy, due

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Endometrial biopsy



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A 31-year-old woman comes to the office for follow up of an abnormal Pap test. Two weeks ago, the patient underwent her annual well-woman examination, and Pap testing revealed a high-grade squamous epithelial lesion. She has no chronic medical conditions and has had no prior surgery. The patient smokes a half pack of cigarettes daily. She has been in a monogamous relationship with a female partner for the past 2 years. The patient has regular monthly menses, and her last menstrual period was a week ago. Vital signs are normal. BMI is 33 kg/m². Colposcopy reveals a nulliparous cervix with no raised or ulcerated lesions. The entire squamocolumnar junction cannot be visualized. Which of the following is the best next step in management of this patient?

- A. Endocervical curettage
- B. Endometrial biopsy
- C. Human papillomavirus testing in 5 years
- D. Repeat Pap testing in 1 year
- E. Transvaginal pelvic ultrasound

Submit





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- A. Endocervical curettage (73%)
- B. Endometrial biopsy (14%)
- C. Human papillomavirus testing in 5 years (0%)
- D. Repeat Pap testing in 1 year (8%)
- E. Transvaginal pelvic ultrasound (2%)

Omitted
Correct answer
A

 73%
Answered correctly

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Explanation

The Pap test is a screening examination for precancerous and cancerous cervical lesions. **High-grade squamous intraepithelial lesion (HSIL)** on Pap testing is concerning for underlying high-grade cervical intraepithelial neoplasia (CIN) or invasive cancer; therefore, patients with HSIL require colposcopy.



The Pap test is a screening examination for precancerous and cancerous cervical lesions. **High-grade squamous intraepithelial lesion (HSIL)** on Pap testing is concerning for underlying high-grade cervical intraepithelial neoplasia (CIN) or invasive cancer; therefore, patients with HSIL require colposcopy.

Colposcopy evaluates the cervix under [magnification](#) to identify abnormalities (eg, acetowhite changes, abnormal vessels) that require biopsy to aid diagnosis and treatment planning. Cervical neoplasia typically occurs at the **squamocolumnar junction**, or transformation zone, because the epithelium at this location undergoes constant cell division and metaplasia (ie, simple columnar endocervix transitioning to stratified squamous ectocervix).

This patient's colposcopy reveals no raised or ulcerated lesions. However, the entire squamocolumnar junction is **not visualized**. Because the **most at-risk area** cannot be seen in its entirety, the evaluation is **unsatisfactory**, and occult CIN or **cancer could be missed**. Therefore, the best next step in management is **endocervical curettage**, which can sample tissue from the transformation zone to assess for lesions.

(Choice B) [Endometrial biopsy](#) is indicated in patients with abnormal uterine bleeding (eg, postmenopausal bleeding), a common sign of endometrial cancer. Although unopposed estrogen (eg, obesity as in this patient) is a risk factor, this patient has regular menses and, therefore, does not require endometrial biopsy.

(Choices C and D) Women age ≥ 30 with normal cervical cancer screening results can undergo human papillomavirus testing in 5 years for routine screening. This patient has HSIL and requires additional management (eg, endocervical curettage, cervical biopsy) besides repeat Pap testing.

(Choice E) Transvaginal pelvic ultrasound is used to assess patients with uterine or adnexal conditions (eg, abnormal uterine bleeding, pelvic pain, adnexal mass). It is not used to evaluate cervical dysplasia.

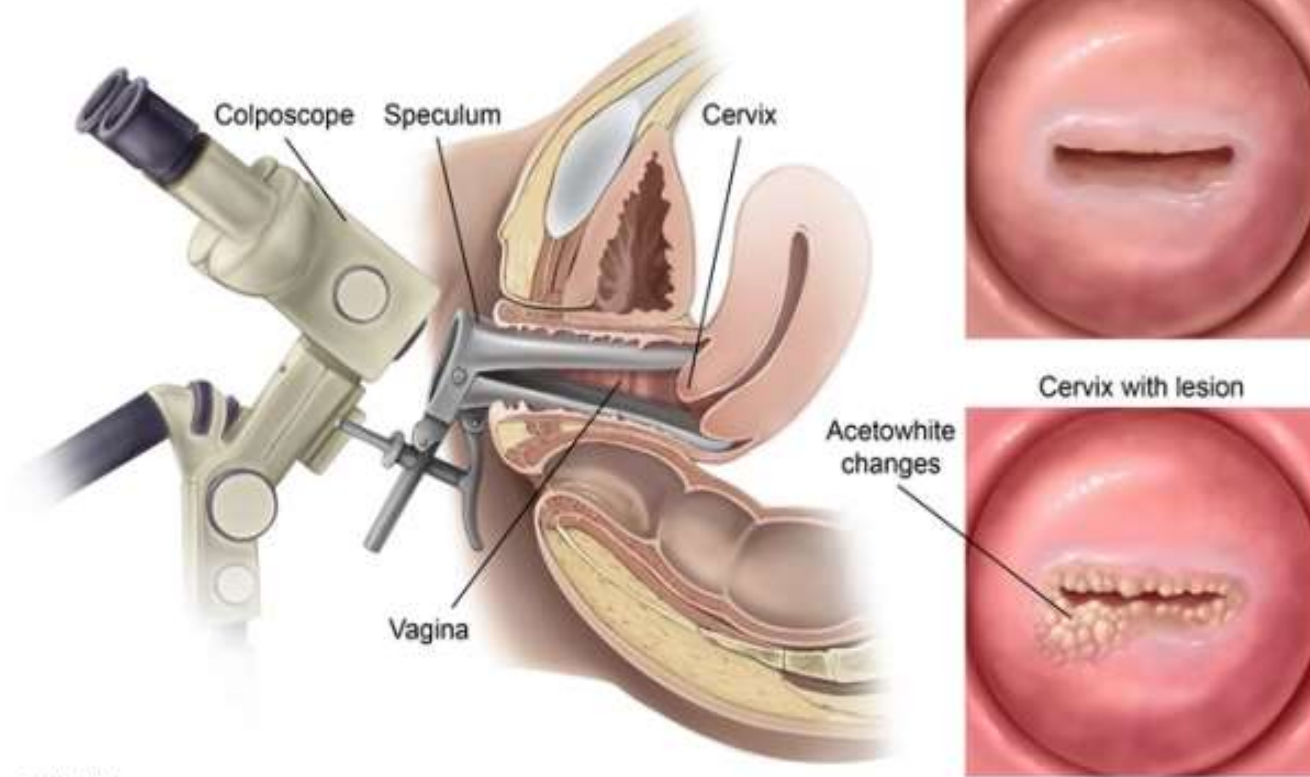
Educational objective:

Patients with high-grade squamous intraepithelial lesions on Pap testing are at high risk for cervical intraepithelial neoplasia and cervical cancer. Because these lesions typically arise from the transformation zone, patients with an unsatisfactory colposcopy (ie, entire squamocolumnar junction cannot be visualized) require endocervical sampling (eg, endocervical curettage).

References

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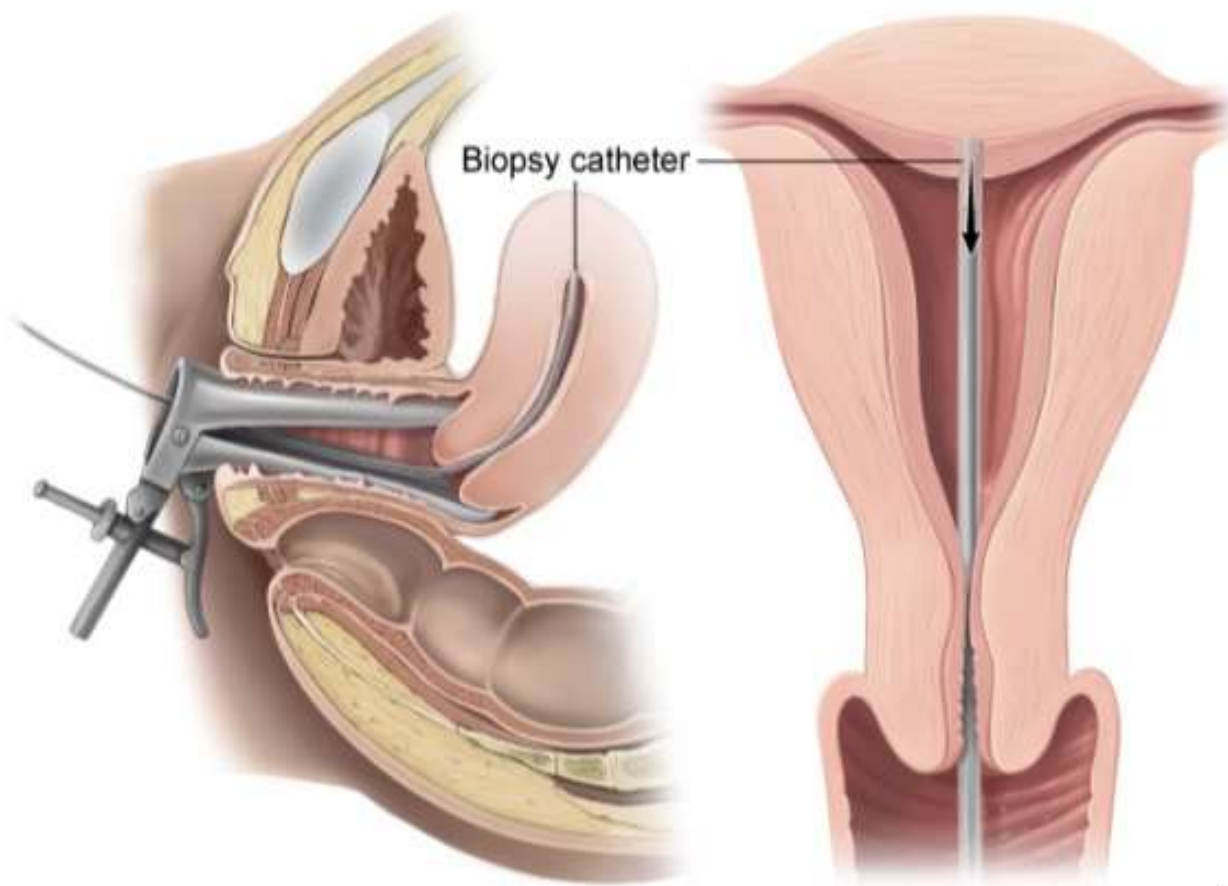
Colposcopy



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Endometrial biopsy



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