Low grade CIN young – pregnant women

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Initial approach to management of CIN is primarily based on :

the patient's risk for progression to cancer

also considers treatment-related **morbidity** and the **compliance** with a management plan

There are two general approaches:

- **Close observation with (HPV) testing, cervical cytology, and/or colposcopy.**

- **Treatment :**

excision or ablation of the cervical transformation zone(specialized cells that are thought to be susceptible to HPV infection and transformation.)

Hysterectomy is occasionally performed instead of excision or ablation but is unacceptable as a primary treatment for CIN in most instances.

Medical therapies have also been described

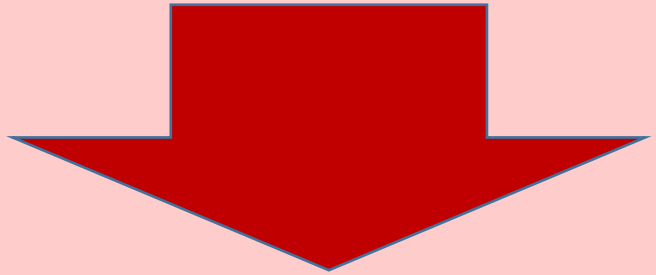
patient's risk for progression to cancer is related to **age** and **CIN grade**:

- **Age**

  Patients younger than 25 years have a lower risk of developing cervical cancer than 25 years and older.

- **CIN grade**

  CIN 1 is a low-grade lesion that has a low potential for progression to malignancy and a high potential for regression, CIN 2,3 is a high grade lesion that has a higher potential for progression and a lower potential for regression.



observation is the preferred approach for most younger patients and those with CIN 1

HPV vaccination status does **not** affect the approach and patients are managed similarly irrespective of HPV vaccination status

Effect of age

in 18 to 29 years , 61 percent of patients with a newly diagnosed, HR-HPV infection cleared the infection at 12 months of follow-up

low risk of cervical cancer in young patients

- annual incidence of cervical cancer at ages 20 to 24 years 1.4 per 100,000 females
- 25 to 39 years was 5.9 to 14.2 per 100,000 females

HPV regression

- all cases of CIN and cervical cancer are attributable to HPV infection
- the rate of HPV infection is high in younger patient populations,
- the infection and associated cervical intraepithelial lesions often regress spontaneously in this population

Natural history of CIN 1 – (in mean age 29.2 years)

- At six months:

49 percent regressed to negative

35 percent had persistent CIN 1

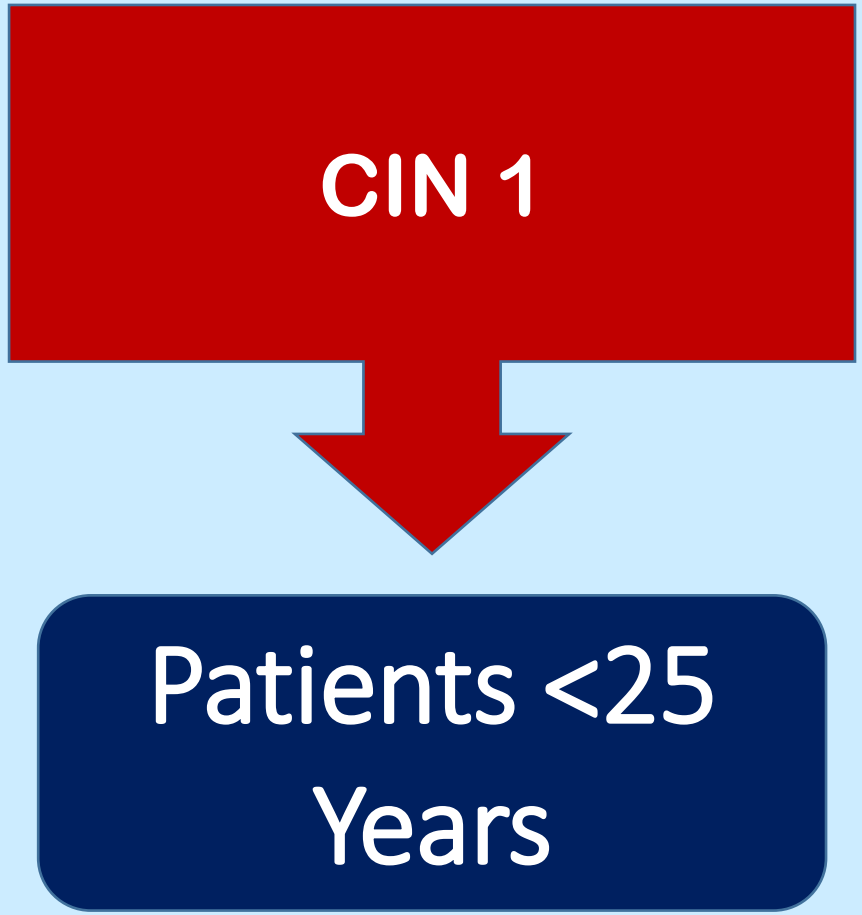
7 percent had high-grade lesions

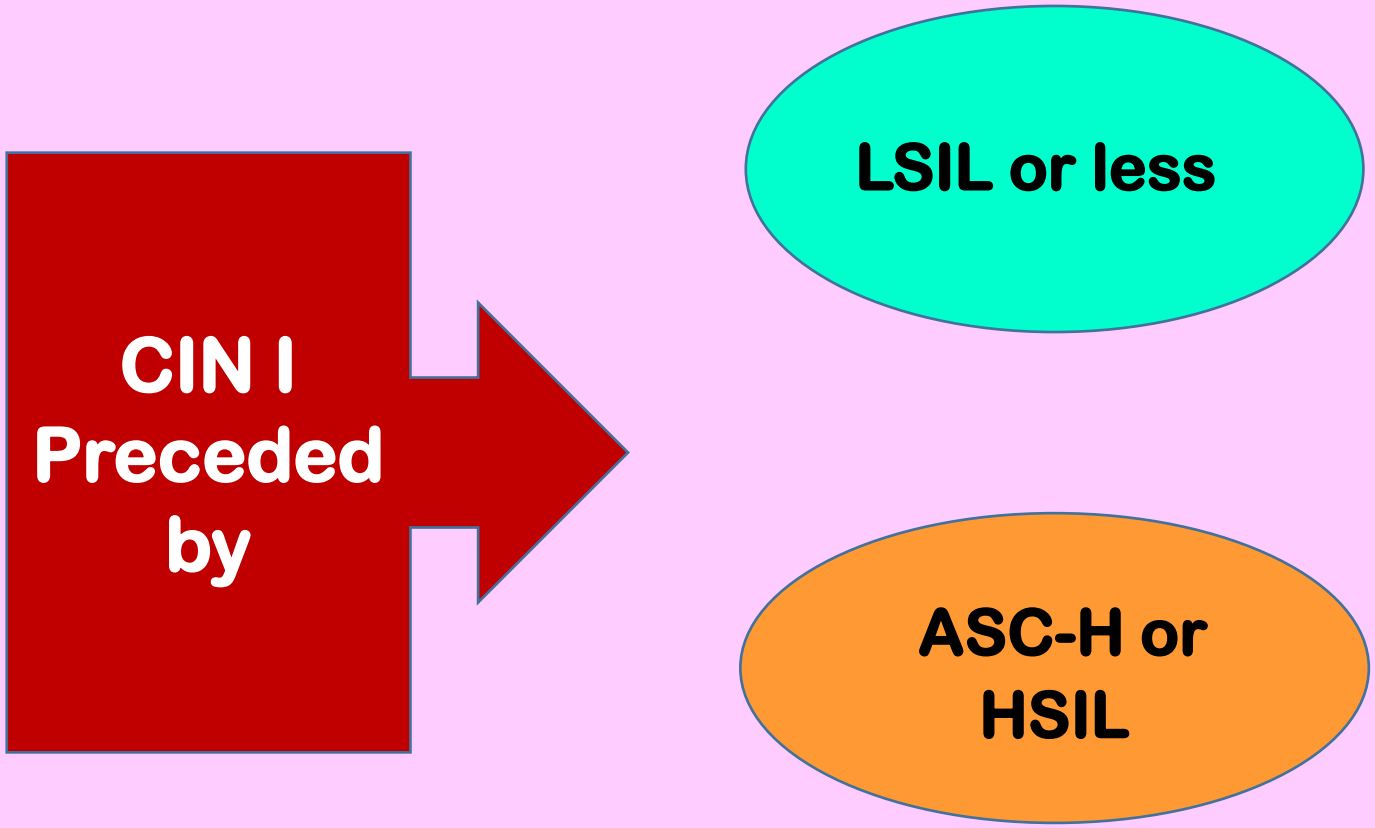
- Among patients with persistent CIN 1 at 6 months and followed to 12 months:

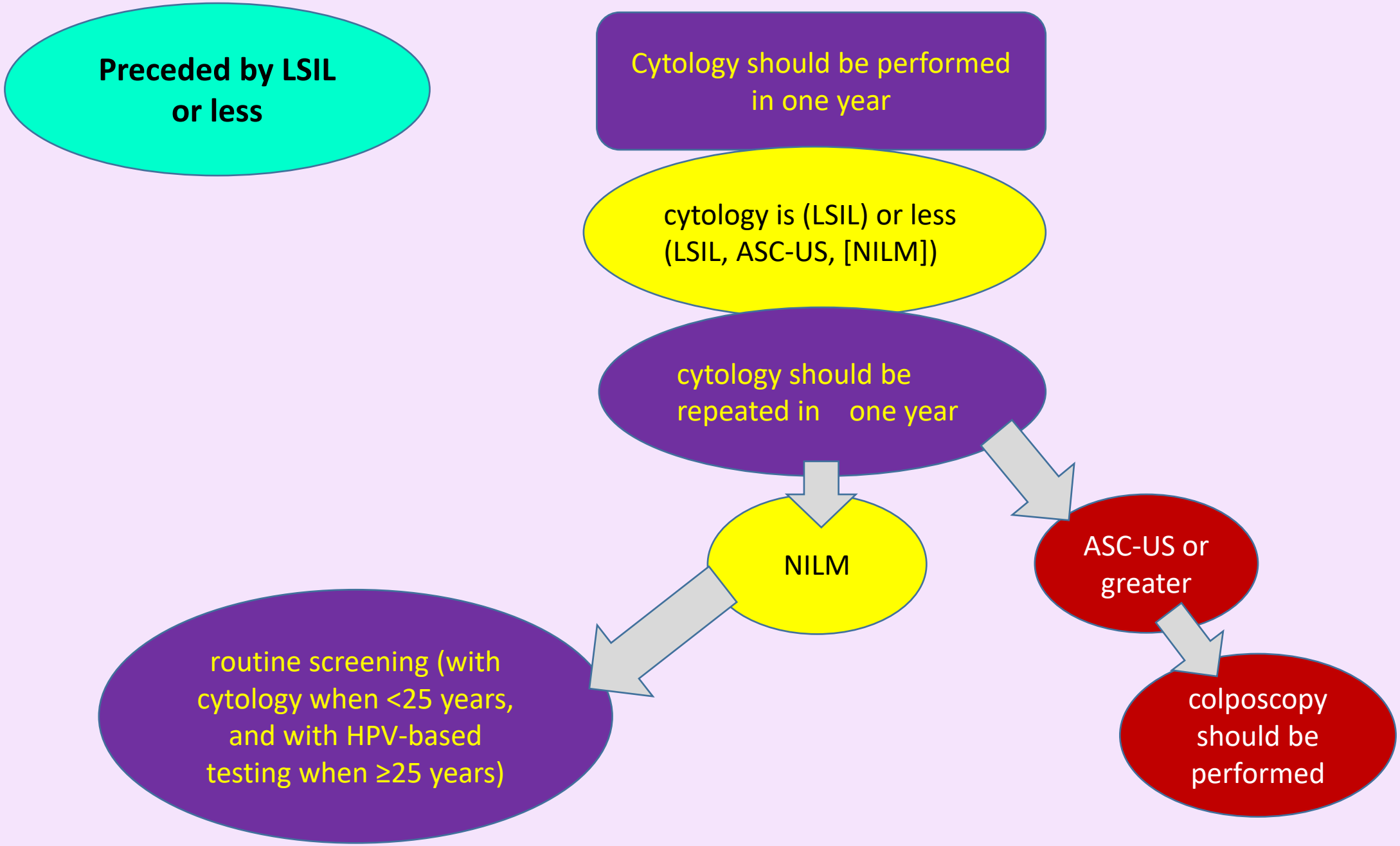
50 percent regressed to negative

46 percent had low-grade lesions

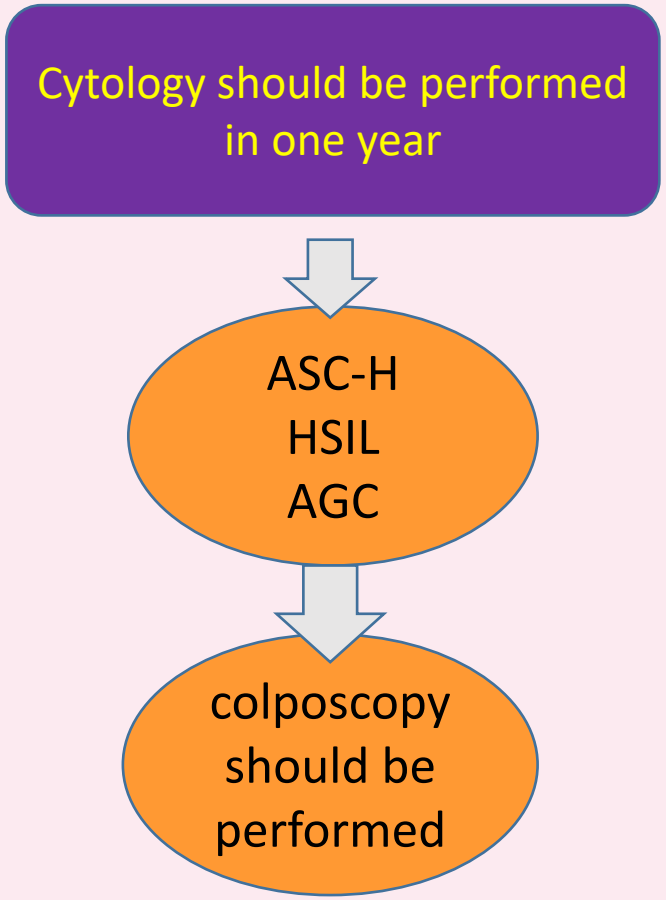
4 percent had high-grade lesions


CIN 1
Patients <25 Years


CIN I
Preceded
by
LSIL or less
ASC-H or
HSIL


Preceded by LSIL or less
Cytology should be performed in one year
cytology is (LSIL) or less (LSIL, ASC-US, [NILM])
cytology should be repeated in one year
NILM
ASC-US or greater
routine screening (with cytology when <25 years, and with HPV-based testing when ≥25 years)
colposcopy should be performed

Preceded by LSIL or less



Preceded by ASC-H

observation consists of **cytology alone in one and two years**

OR

Review cytologic,histologic ,colposcopic finding

Preceded by HSIL

observation consists of **colposcopy and cytology in one and two years**

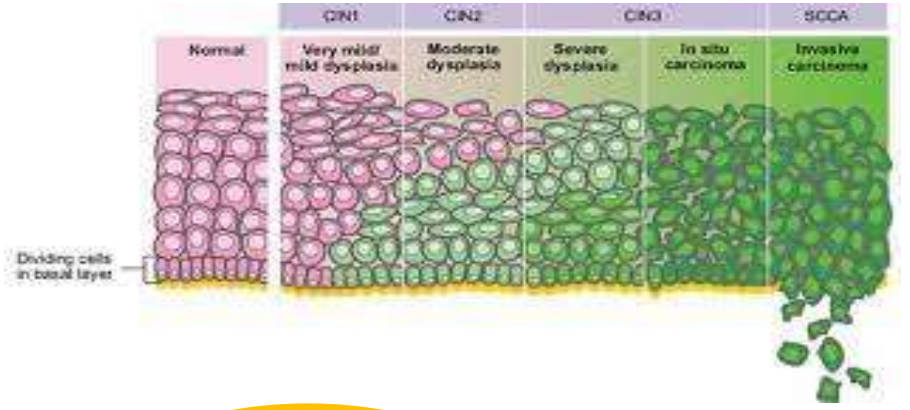
diagnostic excisional procedure

If during observation high-grade cytology (ASC-H or HSIL) **persists for two years** in the absence of a histologic HSIL, then a diagnostic excisional procedure is recommended

A diagnostic excisional procedure is recommended **if the entire SCJ or lesion is not visible on colposcopy**

MANAGEMENT OF PREINVASIVE DISEASE IN PREGNANCY

CIN in Pregnant patients



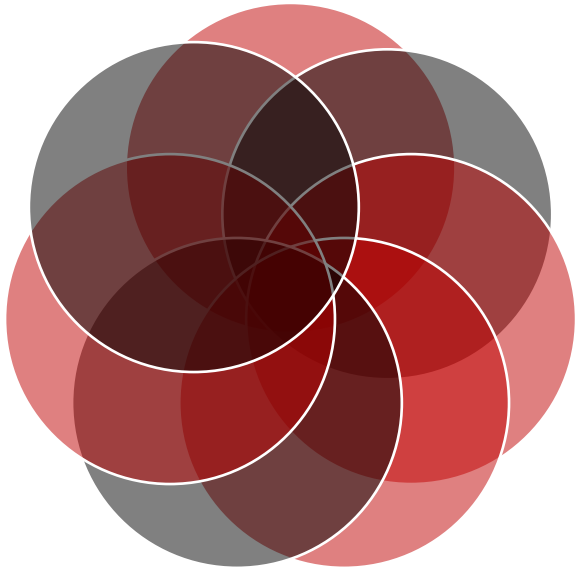
the risk of precancer is not known to be elevated among pregnant patients

The rate of progression of CIN to cervical cancer in pregnant patients is similar to that of nonpregnant patients.

Colposcopy?

Observation?

Biopsy?



Treatment?

Endometrial curettage?

Conization?

Endocervical curettage?

Women with abnormal cervical cytology in pregnancy

management is the same as nonpregnant women,
with the following exceptions:

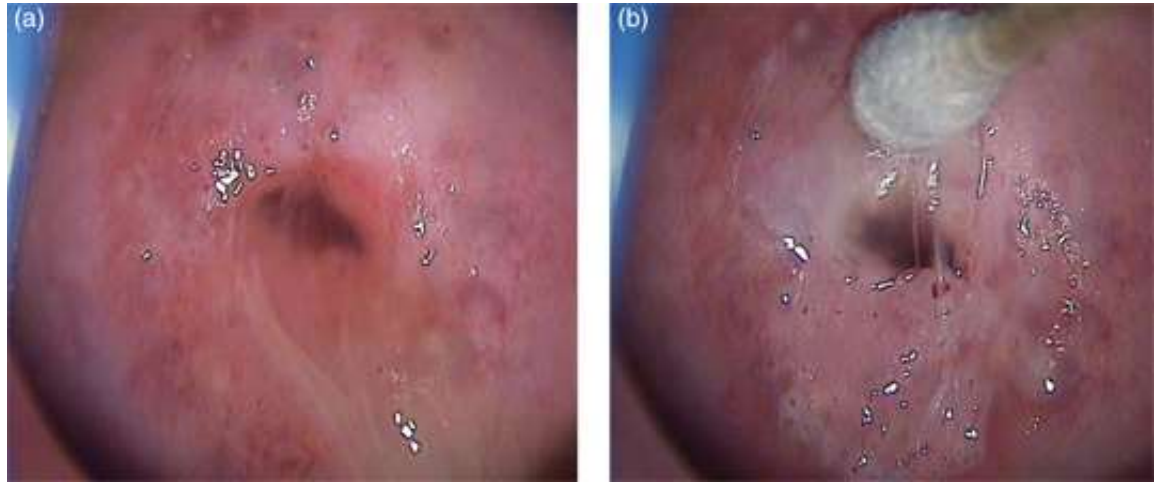
Expedited treatment with a diagnostic excisional procedure is unacceptable without having first performed colposcopy.

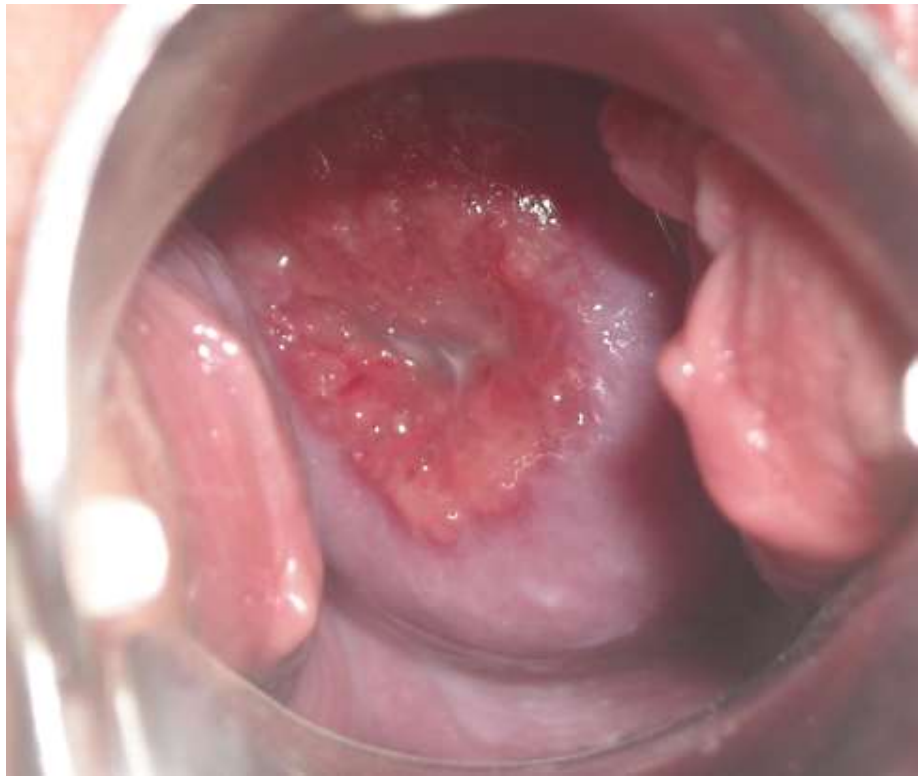
Endocervical curettage and endometrial biopsy should not be performed as part of the colposcopic evaluation

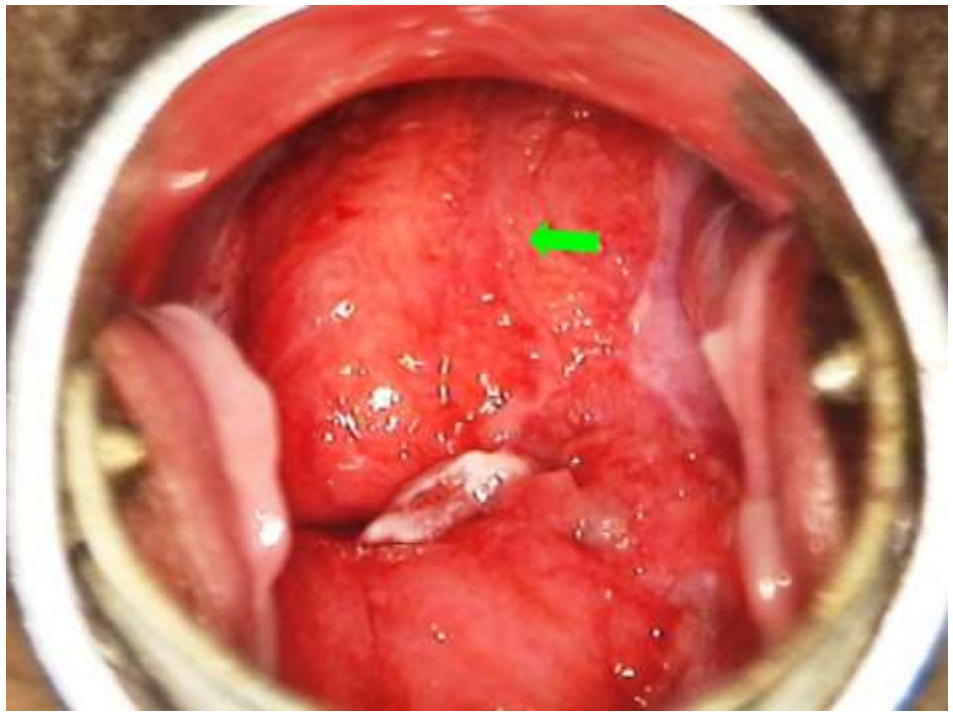
the endocervical canal may be sampled gently with a cytobrush.

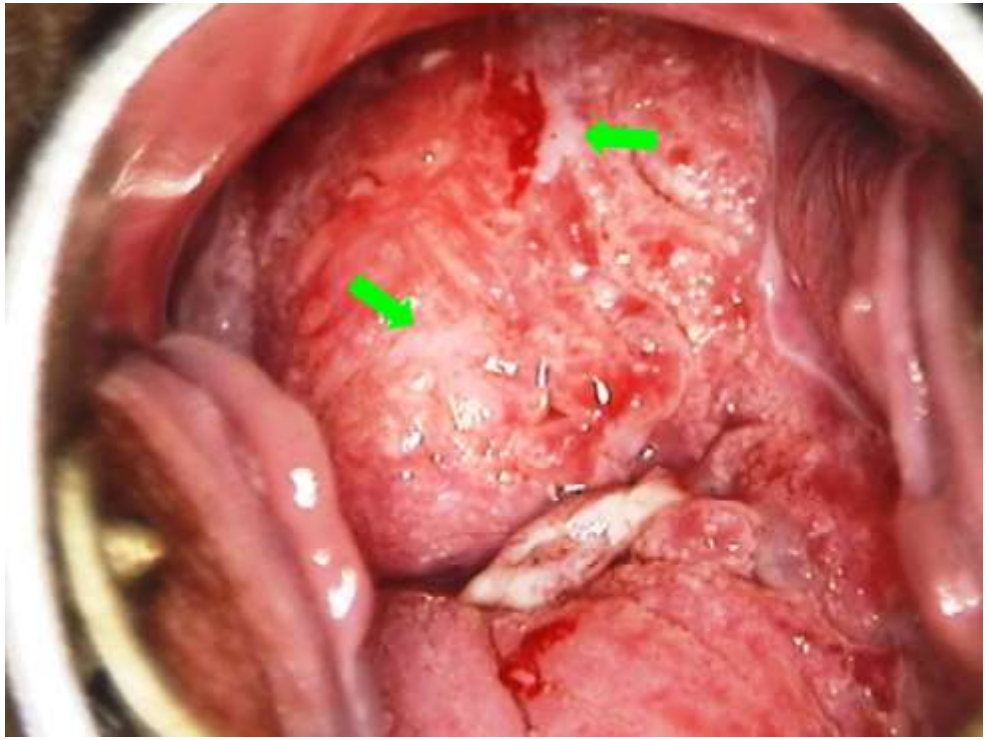
Normal cervix in pregnancy and puerperium

During the first trimester, the cervix does not appear much different than in non-pregnant state. Under the influence of increased hormones, the cervix is enlarged and softer due to increased vascularity and interstitial edema. This also leads to marked eversion of the endocervical canal. The hypertrophy of the villi and the decidual changes give a polypoid appearance of the columnar epithelium. The TZ is enlarged with marked active metaplasia. There is also thick, tenacious mucus production. All these changes become increasingly prominent as the pregnancy advances. Similar changes are also seen in the vaginal mucus causing edematous hypertrophy of vaginal walls and increased laxity.





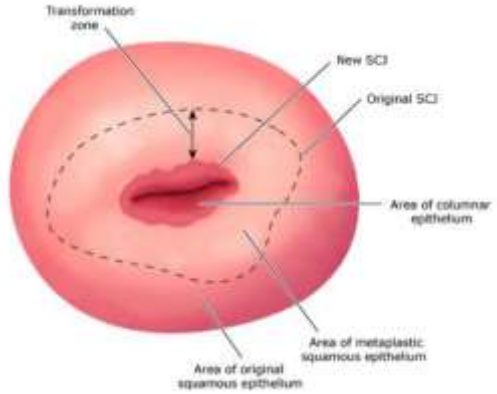




Colposcopy

- Colposcopic evaluation of the cervix in pregnancy is challenging
- it should be done by a **colposcopist experienced** in recognizing both pregnancy-related and cancer-related cervical changes.
- Colposcopist experience, specifically in the evaluation of the pregnant patient, is known to affect the ability to visually distinguish cancers from pregnancy-related changes, decrease the risk of a missed cancer diagnosis.

Colposcopy: Evaluation of the transformation zone



If colposcopy in early pregnancy is unsatisfactory, repeating the procedure in 6 to 12 weeks may result in a satisfactory examination

because the transformation zone may have "migrated" to the ectocervix, thus allowing a satisfactory examination by 20 weeks of gestation.

Colposcopy: Cervical biopsies

- colposcopydirected biopsies in pregnant patients seem to be safe
- can be performed during pregnancy without a significantly increased risk of excessive bleeding.
- Bleeding, if encountered after biopsy, can be controlled with use of Monsel solution or suturing.
- Endocervical curettage is not performed in pregnant women because of concern that it may disrupt the pregnancy, although there is no evidence proving an increased risk of pregnancy disruption

- Even when the preinvasive disease is high-grade, the risk of progression to invasive carcinoma during pregnancy is exceedingly small (0 to 0.4 percent).
- regression may occur postpartum, thus obviating the need for excision.

Treatment of preinvasive disease should be deferred to the postpartum period.

Re-evaluation and definitive therapy for preinvasive disease should be completed six to eight weeks following delivery

Most of experts do not advocate excision during pregnancy because it can be a morbid procedure

Pregnant patients with CIN 1

should not undergo cervical excision or ablation, regardless of the duration of the abnormality and irrespective of whether the preceding tests were high grade ([HSIL] or [ASC-H]).

The patient should be reevaluated four weeks postpartum and managed based on those results.

Treatment of CIN 2 or 3 in Pregnant patients??

Treatment of CIN 2 or 3 is not recommended

in whom invasive disease is not suspected

Pregnant patients with CIN 2 or 3

in whom invasive disease is not suspected are managed accordingly:

preferred

With: colposcopy and cytology ([HPV] if age appropriate)

When: every 12 to 24 weeks during the pregnancy

Repeated biopsy: only if the appearance of the lesion worsens or if cytology suggests invasive disease

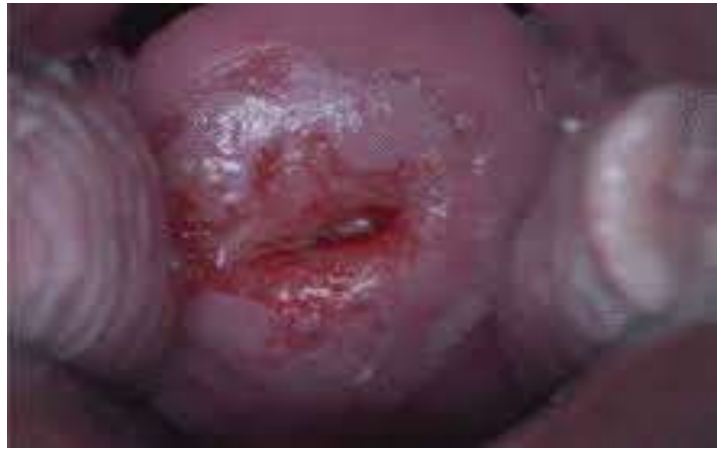
. Endocervical sampling with a curette and endometrial sampling should **not** be performed as there is a risk of disturbing the pregnancy.

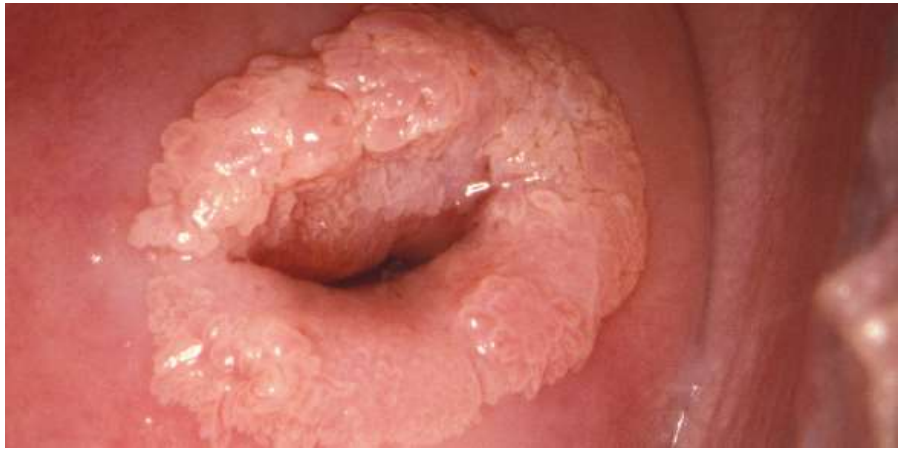
acceptable

Deferring colposcopy until four weeks postpartum

Invasive disease suspected

A diagnostic excisional procedure is performed only if invasive disease is suspected.





In the postpartum period:

colposcopy is recommended **no earlier than 4 weeks after delivery** (BII).

In the postpartum period:

- colposcopy is recommended no earlier than 4 weeks after delivery (BII).
- In patients diagnosed with histologic HSIL (CIN2 or CIN3) during pregnancy:

if a lesion is detected at postpartum colposcopy → an excisional treatment procedure or

full diagnostic evaluation (cervical cytology, HPV, and biopsy) is acceptable (BII)

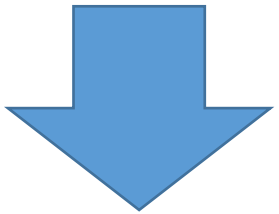
In the absence of a lesion on colposcopy → a full diagnostic evaluation is recommended;

expedited treatment is not recommended (BII)

Indications for and performance of conization

- conization in **nonpregnant** patients:
- Diagnosis: to exclude invasive cancer when a punch biopsy shows only microinvasive disease or adenocarcinoma in situ(to identify maximum depth of invasion)
- Treatment: high grade CIN

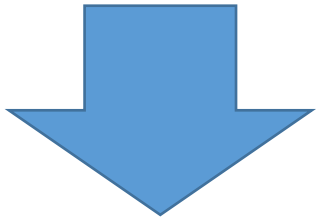
- Traditional indications for cervical conization in the nongravid population are not applicable during pregnancy.
- the morbidity associated with cervical conization during pregnancy is substantial



Indications for and performance of conization

conization is postponed until the postpartum period to avoid potentially disrupting the pregnancy

diagnostic conization is only indicated during pregnancy if confirmation of invasive disease will alter the timing or mode of delivery



Potential complications of conization during pregnancy include:

hemorrhage (5 to 15 percent)

miscarriage

premature rupture of membranes

preterm labor/delivery

infection

Fetal death is uncommon. It has been reported weeks after the conization procedure and, in some cases, was attributed to chorioamnionitis.

Considerations about delivery

- It is unclear whether route of delivery (vaginal versus cesarean) affects the rate of regression; route of delivery should be based on standard obstetrical indications.
- Retrospective and case-controlled studies suggest that vaginal delivery through a cervix with microscopic cervical cancer generally does not alter maternal prognosis.
- Therefore, women with stage IA1 and IA2 cervical cancer can proceed with a vaginal delivery, with cesarean delivery reserved for standard obstetrical indications.
- **Episiotomy should be avoided when possible.**

Review > Obstet Gynecol Surv. 2000 Oct;55(10):633-43.
doi: 10.1097/00006254-200010000-00022.

Management of stage I cervical cancer in pregnancy

C Nguyen [1], F J Montz, R E Bristow

Case Reports > Gynecol Oncol. 1995 Nov;59(2):297-9. doi: 10.1006/gyno.1995.0025.

"Microinvasive" adenocarcinoma of the cervix implanting in an episiotomy scar

N R Van den Broek [1], A D Lopes, A Ansink, J M Monaghan

Review > Best Pract Res Clin Obstet Gynaecol. 2005 Aug;19(4):611-30.
doi: 10.1016/j.bpobgyn.2005.03.002.

Cervical neoplasia during pregnancy: diagnosis, management and prognosis

K Van Calsteren [1], I Vergote, F Amant

At least 15 cases of tumor cell implantation in the episiotomy site have been reported after vaginal birth in women with cervical cancer. Five of the 11 patients who had recurrence of cervical cancer in the episiotomy site died of their disease

It is suggested excising a "**coin**"-shaped specimen instead of a "cone"- shaped specimen to:
limit disruption of the endocervical canal, minimize morbidities associated with blood loss, avoid disturbing the fetal membranes.

If a true conization is required, one option is to perform a cone cerclage whereby a cerclage is placed immediately after the conization