



Cervical Conization

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Cone Biopsy is a surgical procedure with removal of a cone shaped portion of the cervix

The extent of involvement of epithelium on the ectocervix has been clearly demarcated by colposcopy

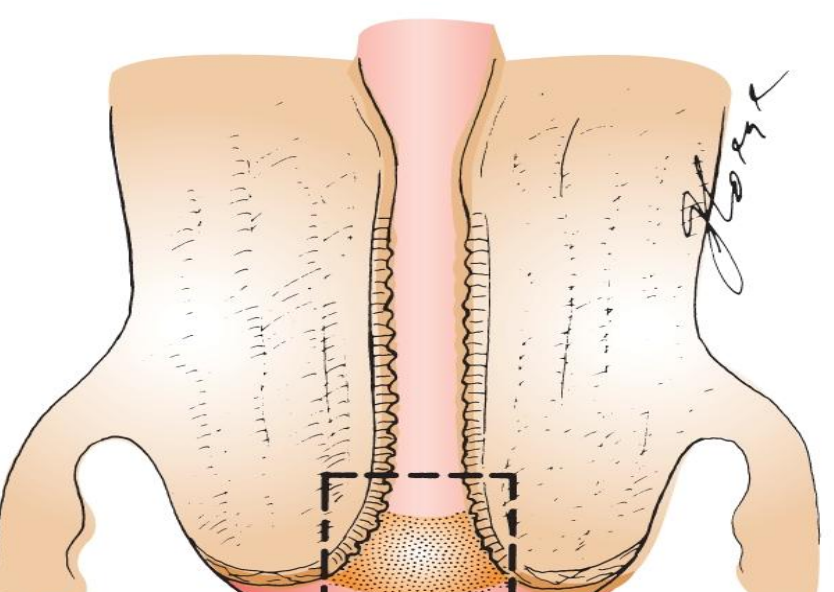
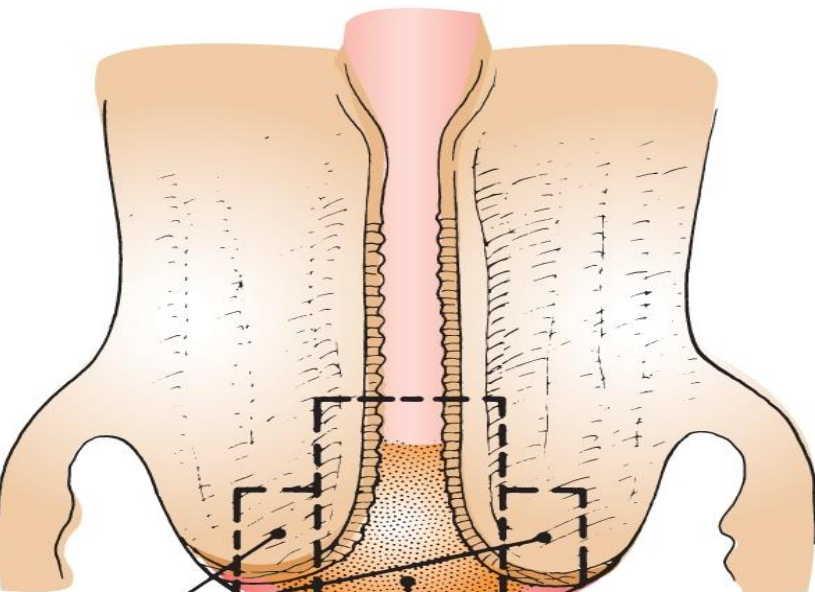
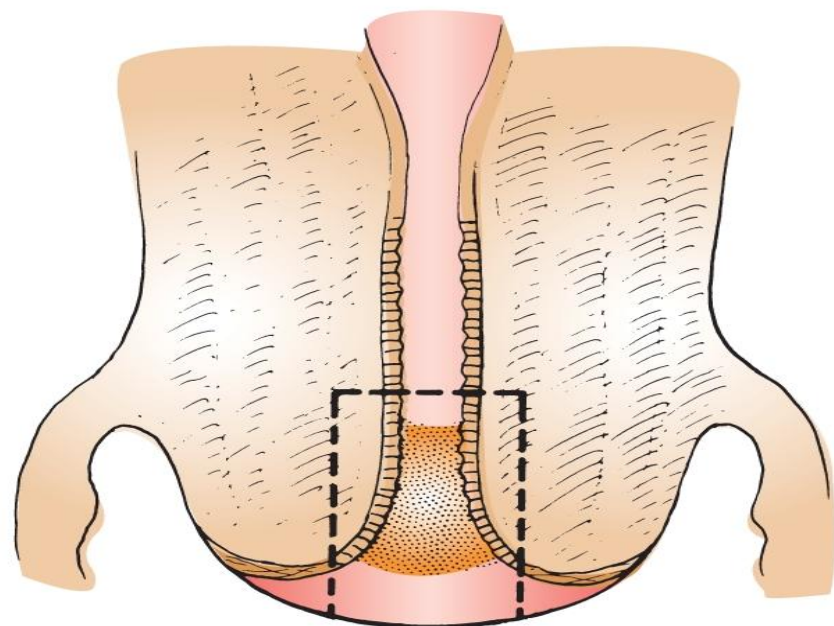
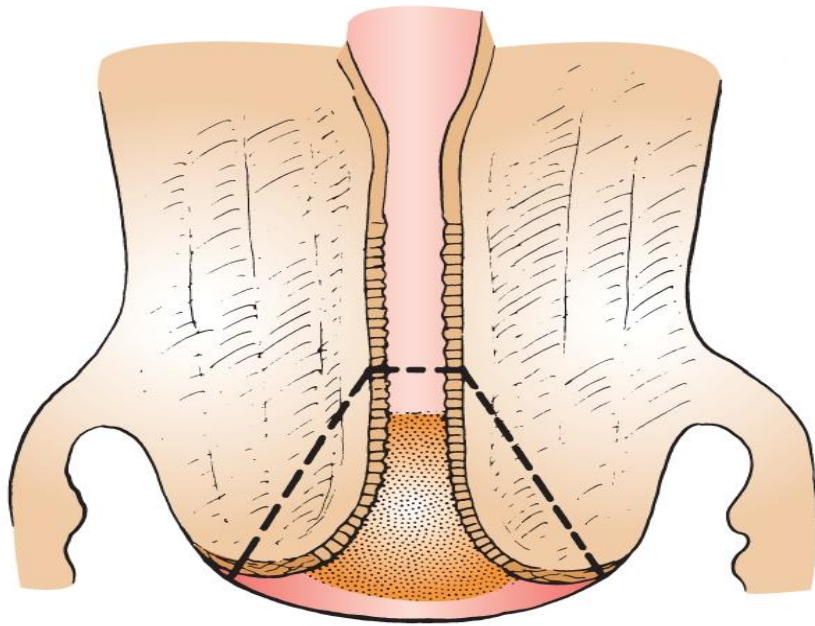
Lugol's iodine solution aids in this determination

The endocervical canal is sounded to guide the direction and depth of the excision

This incision does not need to be circular but should accommodate excision of all atypical epithelium

The extent of excision must be adjusted according to individual needs

A small amount of normal tissue around the cone-shaped wedge of abnormal tissue is also removed so that a margin free of abnormal cells is left in the cervix



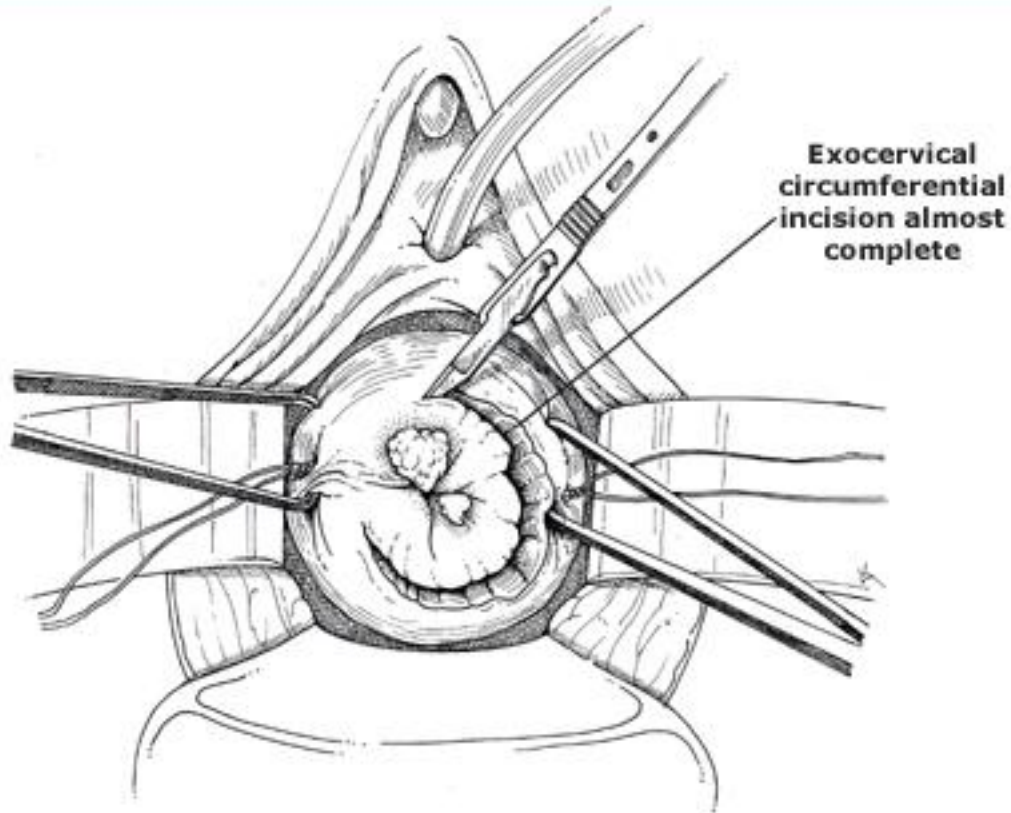
Ablation
Excision

Zohre

The excised specimen is tagged at the 12 o'clock position using suture to allow for proper orientation by the pathologist

conization can provide more exact pathological information particularly in the evaluation of CIN grading and stromal invasion

Start of cone biopsy



An exocervical circumferential incision is initiated.
Courtesy of William J Mann, Jr, MD.

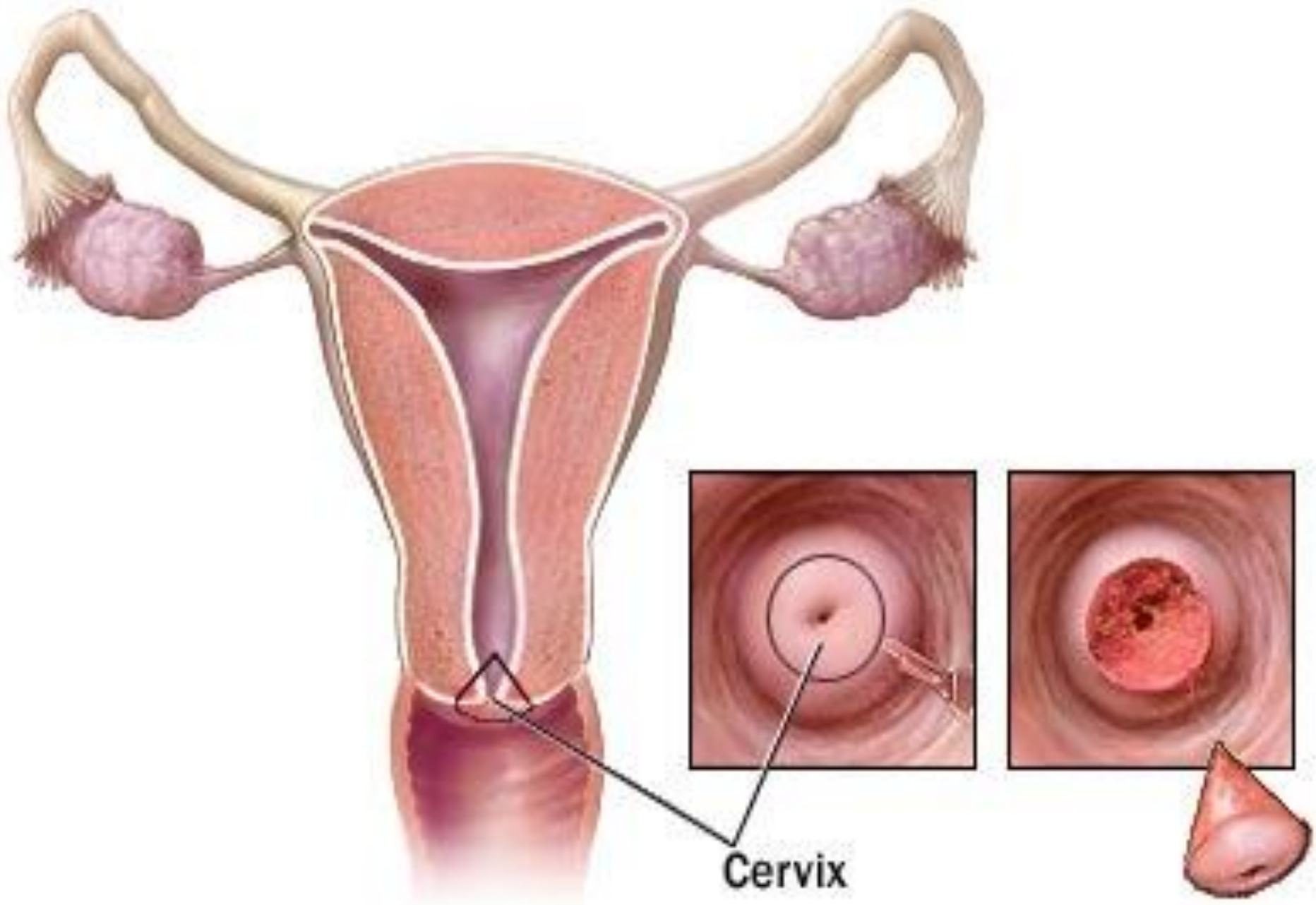
High endocervical involvement fairly accurately is possible

Obtaining cytology specimens

by performing endocervical curettage

or by with an endocervical brush

A fractional curettage of the
endocervical canal
and endometrium
to exclude residual squamous
or glandular disease
of the upper endocervical canal
or of the endometrium



Cervix

The base of the surgical site maintain hemostasis can be cauterized to or hemostatic sutures

The traditional Sturmdorf sutures are not advisable because of the risk of burying residual disease

Simple U-sutures placed anteriorly and posteriorly

may be used if bleeding persists



Indications conization:
(ASCCP) American Society for Colposcopy
and Cervical Pathology issued

Conization may be used either for diagnostic
purposes or

for therapeutic purposes
to remove pre-cancerous cells

Indications for **Diagnostic conization**

1. The lesion cannot be fully visualized
2. The ECC is positive
3. There is significant discrepancy between the Pap smear and biopsy
4. A biopsy reveals microinvasive squamous cell carcinoma
5. A biopsy reveals adenocarcinoma in situ

- Finding epithelial cell abnormalities in the
- absence of gross
- or colposcopic lesions of the cervix
-
- Unsatisfactory colposcopy
-
- AGUS

Therapeutic conization:

Treatment of cervical cytological abnormalities

CIN grades 2 and 3

Carcinoma in situ

Treatment issued :

Ablative or excisional

The excisional treatments include

(LEEP) conization Cold –knife conization

The ablative treatments

- Electrocautery
- Cold coagulation Cryosurgery
- Laser

Types excisional conization include:

- Cold knife conization
- Usually outpatient, occasionally inpatient
- [loop electrical excision procedure \(LEEP\)](#)
 - Combined conization usually refers to a procedure started with a laser and completed with a cold-knife technique
 -

Cervix



LEEP probe



"Cone" of tissue is removed

- benefits and disadvantages

Cold-knife conization provides the cleanest specimen margins for further histologic study

but it is typically associated with more bleeding than laser or LEEP and

it requires [general anesthesia](#) in most cases

Laser procedures are of longer duration

if low-power density is used
may "burn" the margins
thus interfering with histological diagnosis

the high cost of the procedure

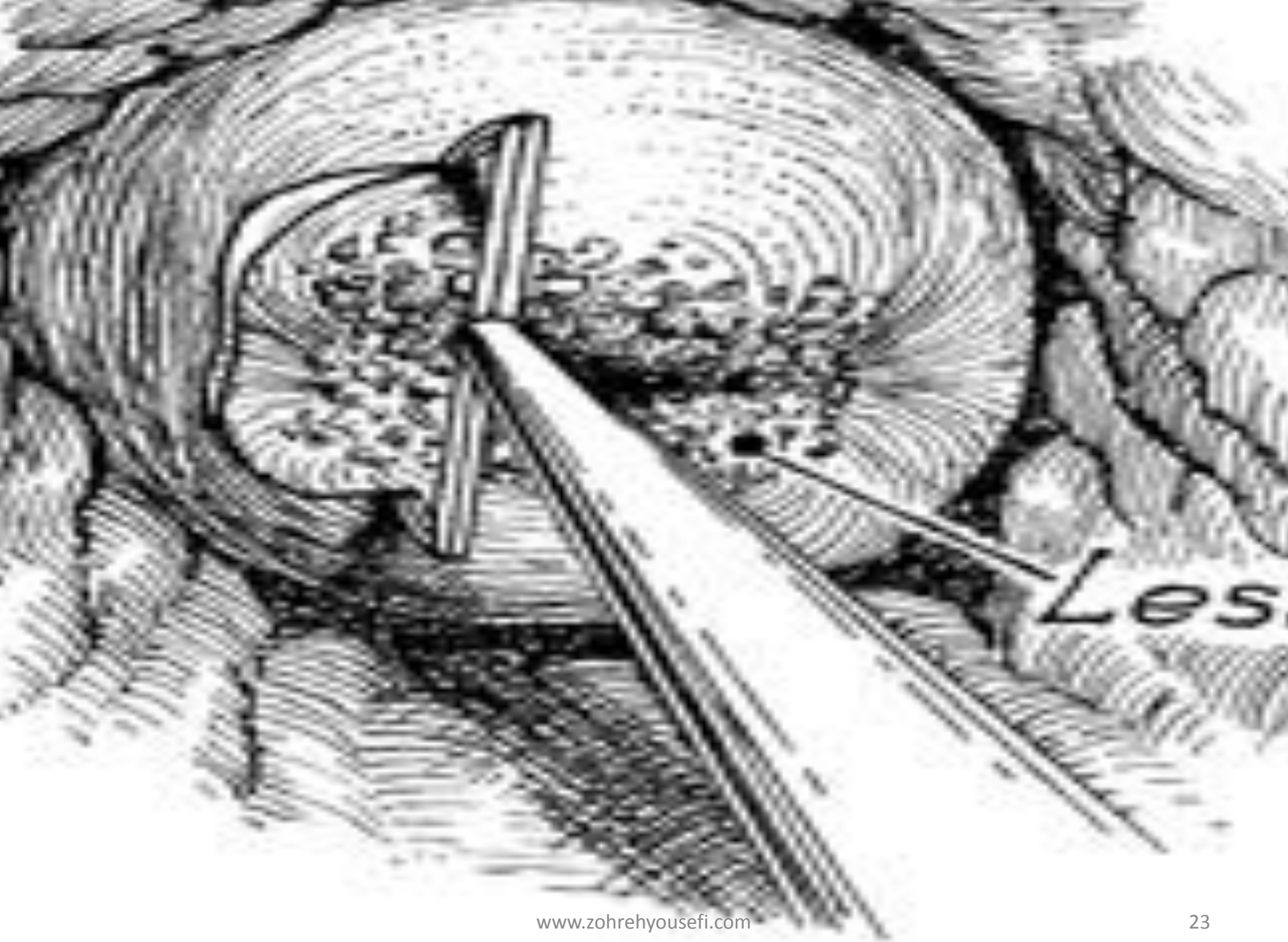
The main advantage with this procedure

dots produced by the laser energy can be
used to accurately outline the exocervical
margins

LEEP procedures have several advantages
Including:

- Rapidity
- preservation of the margins for histological evaluation and virtual bloodlessness

can perform LEEP procedures in the office or
in other outpatient settings



electro coagulation or cryosurgery
Are procedures that do not yield tissue
for pathologic studies

their use should be limited to

those women in whom an accurate
preoperative diagnosis has been
established by directed biopsy findings

Cold -knife conization :

Controversies exist as to

the necessity of removing the entire
endocervical canal

including the internal os, in all cases

Conizaion treatment difficulties:

- atrophy of the cervix post-menopausal
- patients not easily observed transformation zone is by colposcopy
- there are increased conizaion treatment difficulties
-
- Therefore, the effectiveness of the treatment of (CIN2 and CIN3) in post-menopausal women needs to be investigated



Side effects of the conization may include:

- cervical stenosis with resulting hematometra (collection of blood in uterus)
- Intraoperative
- or postoperative bleeding

If bleeding is heavier and does not settle quickly

hemostasis using Monsel's solution

- Rarely, sutures may be required
- Infertility
- increase the risk of [incompetent cervix](#)

Pregnancy loss and Preterm birth

Prophylactic cervical cerclage
Did not prevent preterm delivery

The cerclage may itself be a risk factor for
preterm delivery

Sutures can act as a foreign body

which may cause uterine irritability

And lead to contractions after a cerclage
procedure.

Main cause of treatment failure conization :

- Risk factors of positive margins
- A larger lesion area
- Menopausal status
- Carcinoma in situ
- LEEP

Risk factors for recurrent disease:

- Age
-
- cytology grade
- Menopause status
- Margin involvement
- HPV genotype
- HPV viral load

Have all been observed as risk factors In CIN treatment

Decrease of risk factors for

residual/ recurrent disease
after conization

Cytology or
curettage specimen

immediately after conization
(glandular involvement)

Predicting the persistence of HPV in CIN after conization

HPV genotype 16

And margin status



Restrictions after this procedure?

- Avoid any activities that require concentration for two days
- (i.e. driving a car, because some medications may make drowsy or dizzy)
- Avoid swimming in public swimming pools for about 3 weeks
- Return to work 5-7 days after surgery

After a cone biopsy

- Some vaginal bleeding is normal for up to 1 -2 weeks
- Some vaginal spotting or discharge (bloody or dark brown) may occur for about 3 weeks
- Sexual intercourse should be avoided for about 3 weeks
- Douching should not be done for about 2- 3 weeks

Cervical conization

achieves cure rates
for high-grade CIN

of in excess of 95% of cases

Several reasons for the
absence of residual dysplasia in LEEP
specimens despite
of dysplasia is identified
by colposcopic biopsy

(16.4% - 17.7%)

- First, the CIN lesion is focal and small and removed completely by punch biopsy
- Second, the remaining small lesion after punch biopsy may undergo spontaneous regression
- Third, CINs are missed and not removed by LEEP
Residual disease during follow-up
- Fourth, the wrong pathological report can be obtained fail pathologist to observe the area that contained the CIN
- Close follow-up of cases with no dysplasia in LEEP specimens is still needed

Follow-up after conization:

Repeat Pap smears

and colposcopy should be performed

at 6 and 12 months post treatment

After several normal Pap test

the patient may return to

annual screenin

particularly if a high risk HPV DNA test

is negative

Thank you

