



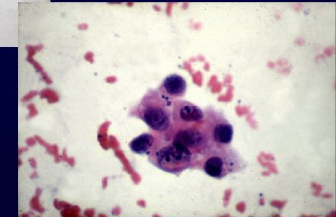
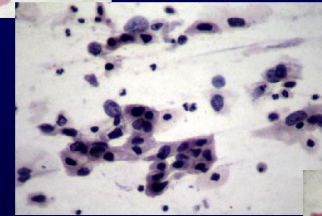
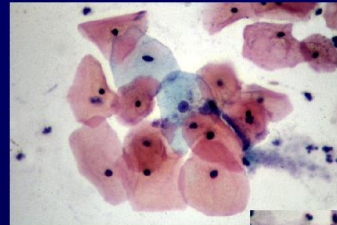
International Scientific Conference  
Prevention of Cervical Cancer: Looking into the Future  
Moscow, 31.March-2. April

Modern approach to treatment of  
CIN and micro-invasive cervical cancer

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Clinical Center of Serbia



Hans Hinselman  
Colposcopy, 1924



George Papanicolaou  
Cytology, 1945

Cervical cancer has become detectable  
and curable disease.

Recently, however,  
significant controversy  
has arisen over several aspects of  
the diagnosis and management of  
cervical intraepithelial neoplasia

There is no dispute about the need  
to treat CIN 3  
and few would argue  
that CIN 2 should be managed conservatively.

These two grades of CIN (CIN 2 and CIN 3)  
are referred to as high-grade lesions  
to differentiate them from  
the low grade lesions (CIN 1 and HPV changes)

In the spectrum of cervical pathology  
the line between premalignant and benign lesions  
may be drawn between

CIN 1

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CIN 2

CIN 3

## L-SIL

- High proportion of women affected
  - Low risk of progression
- Significant regression may occur



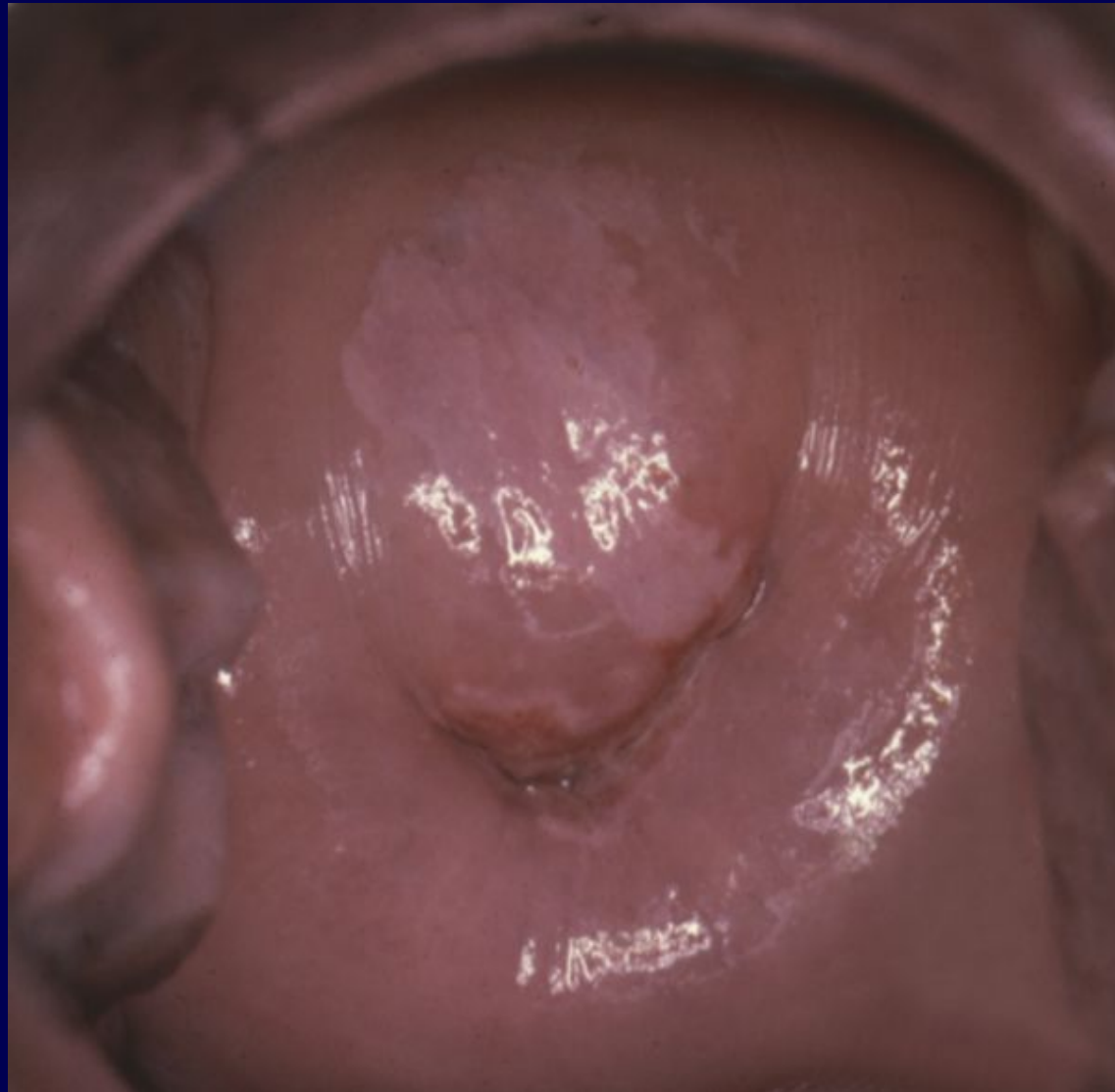
## Management of CIN 1 (L-SIL)

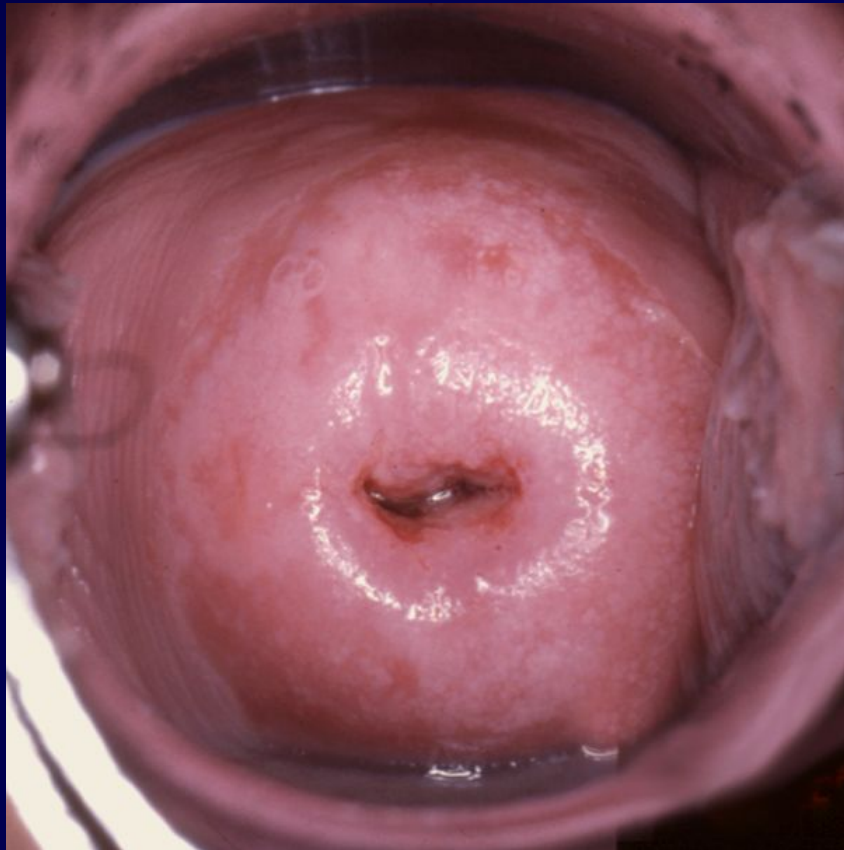
- Conservative
- Active

## Management of L-SIL

Close observation **with cytologic and possibly colposcopic follow-up, without active treatment** is the preferred management option.



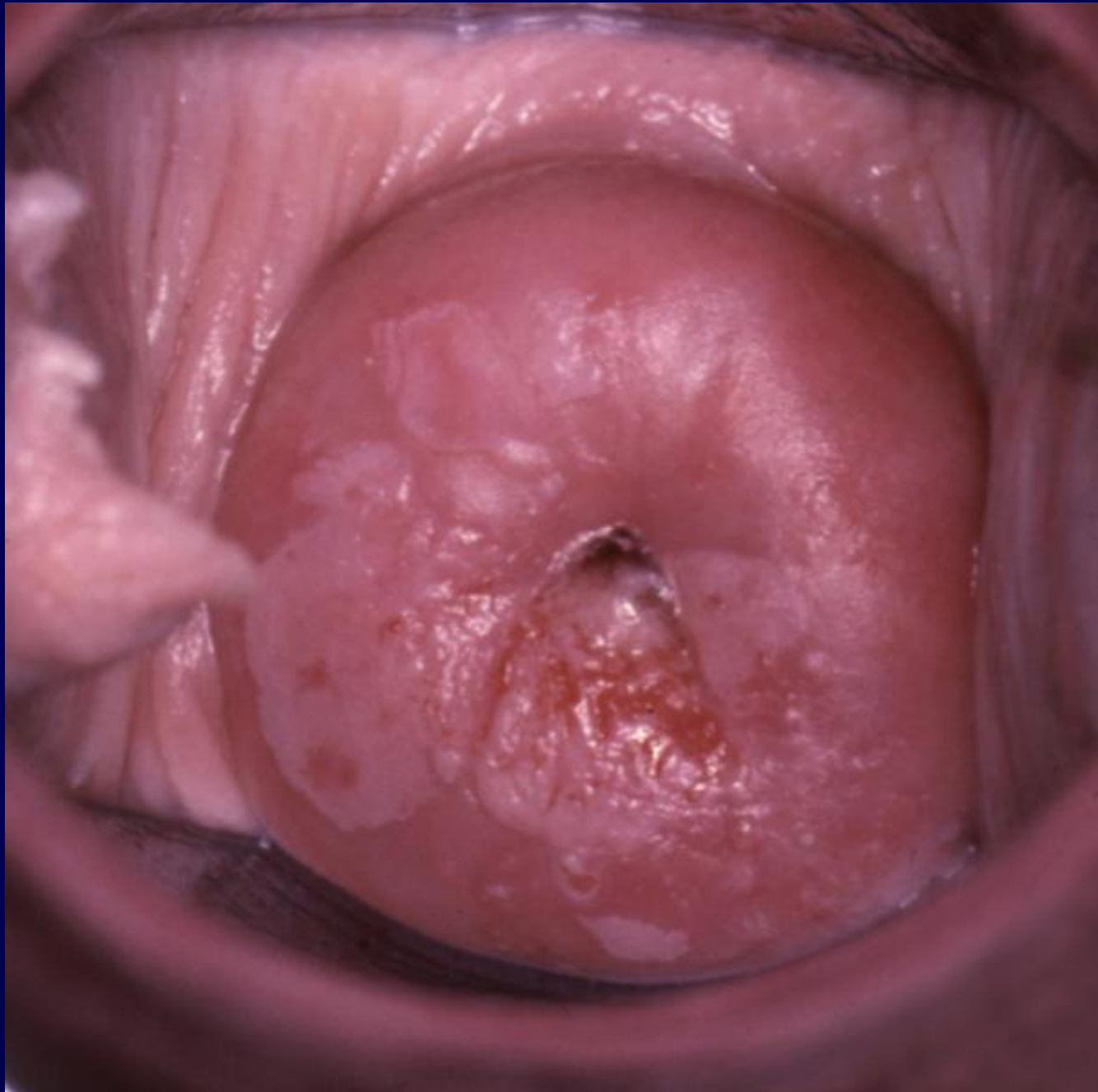




Expectant management of CIN 1  
is not totally without some risk...

..... because of the:

- potential for a high-grade lesion  
to develop during follow-up
- already existing high-grade lesion  
that was not correctly diagnosed
- loss to follow-up







If large lesions or persistent lesions are present or if the patient is at risk for being lost to follow-up, active treatment may be favored



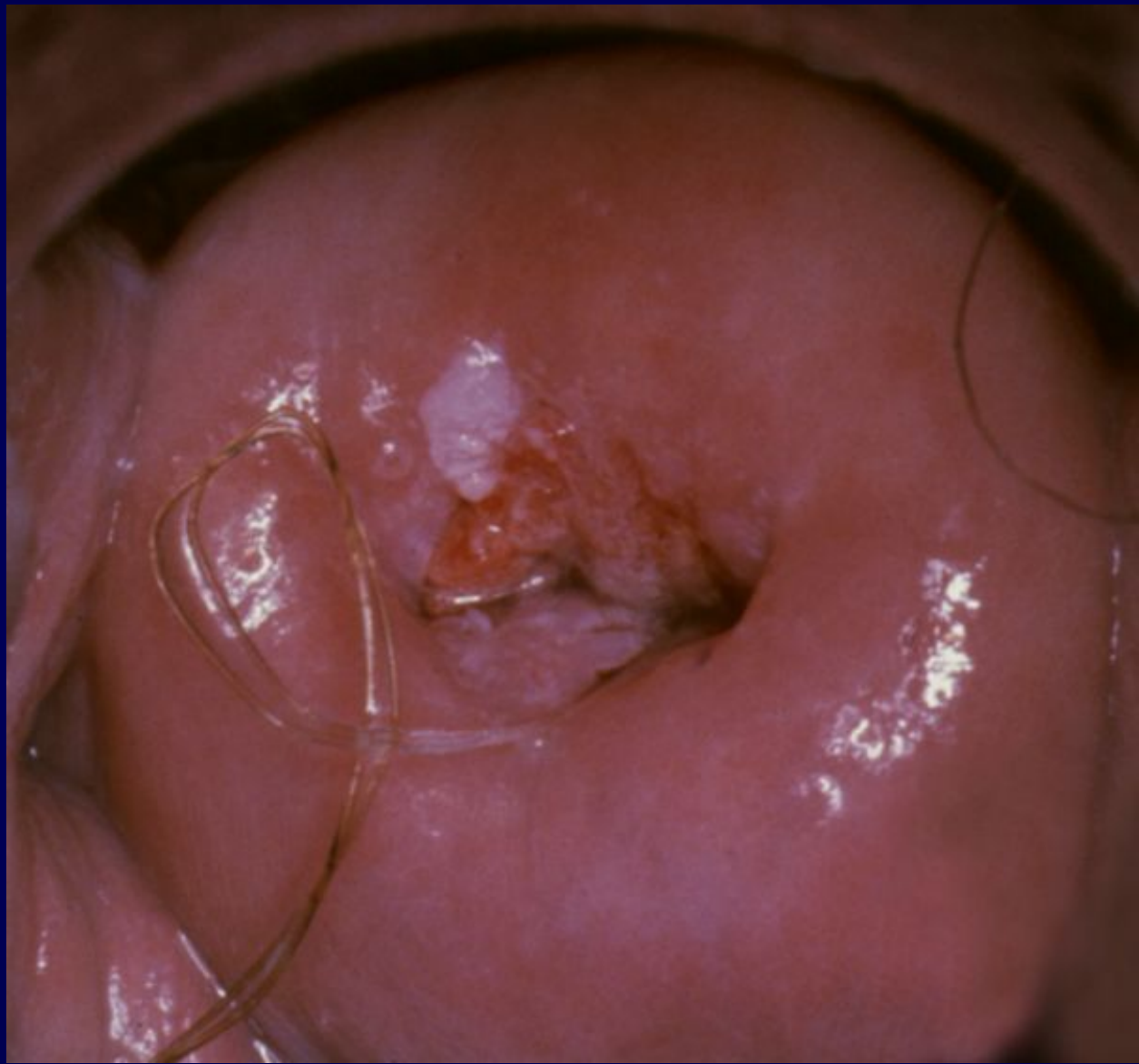
Active management of women with CIN 1 is recommended in the following cases:

- Unsatisfactory colposcopy
- Large, complex lesions
- Persistent CIN 1 (> 18 months)
- Women older than 35
- Noncompliance for follow up

Women with biopsy confirmed  
H-SIL (CIN 2 and 3)  
have significant risk of disease progression  
to invasive cancer and should be treated.





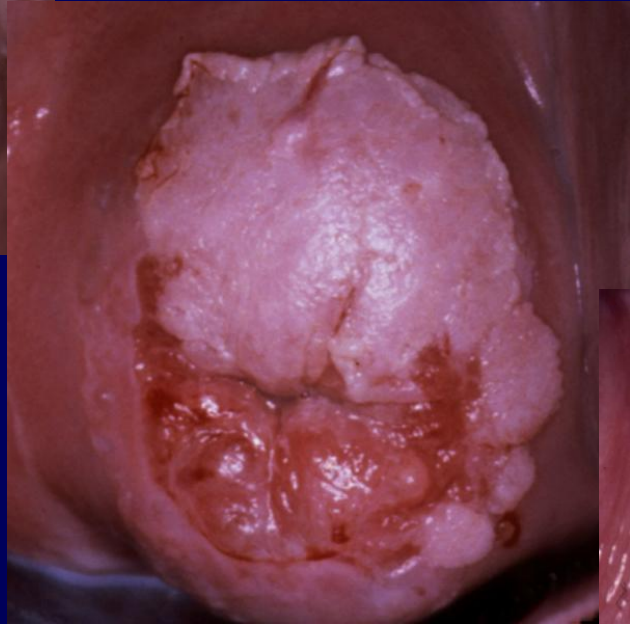


The expectant management of CIN 2 and 3  
with repeat cytology and colposcopy  
is not acceptable except for:

- pregnant patient
- very young patients with CIN 2







**Destruction or Excision ?**

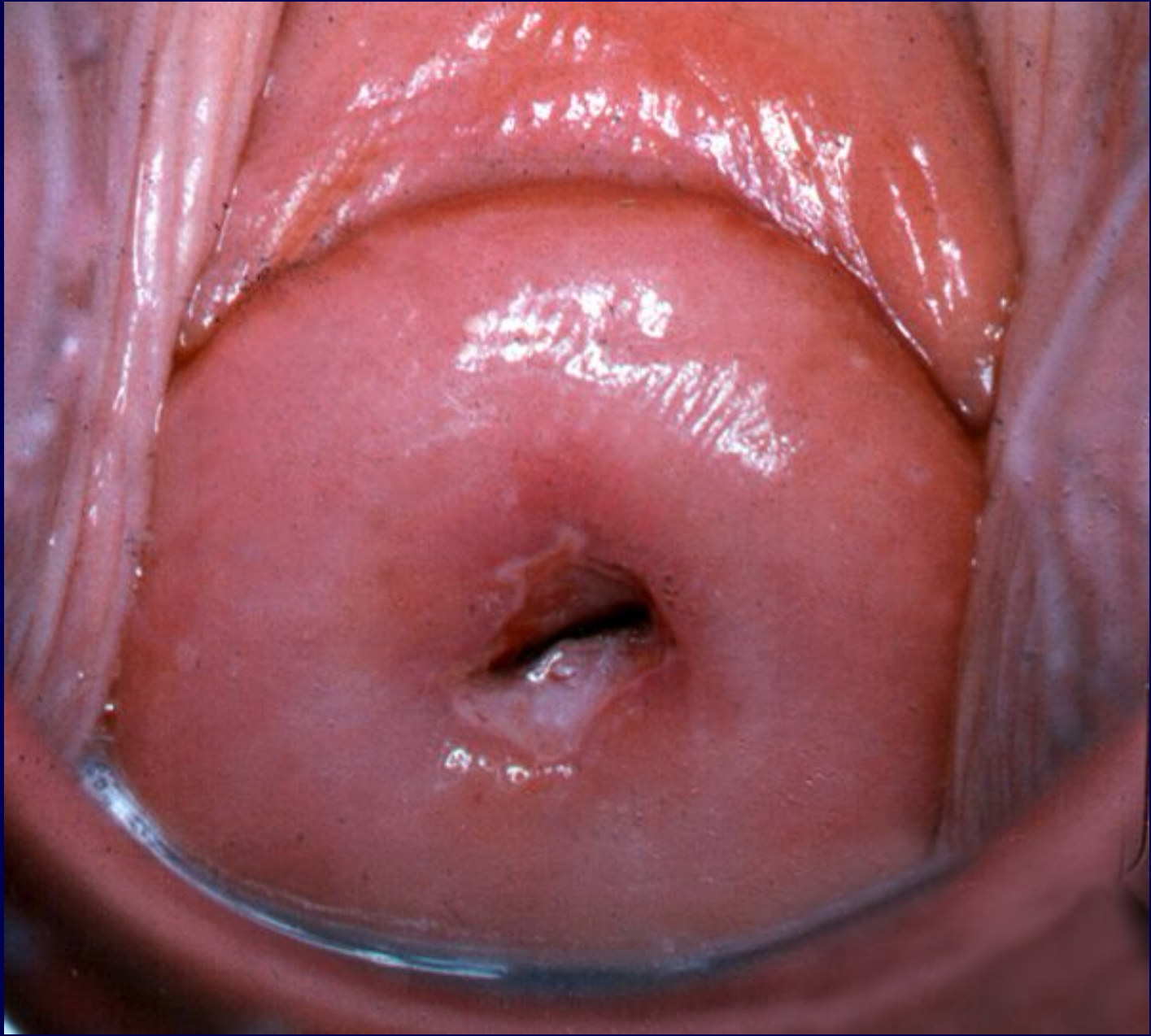
## Management of HSIL

excision recommended

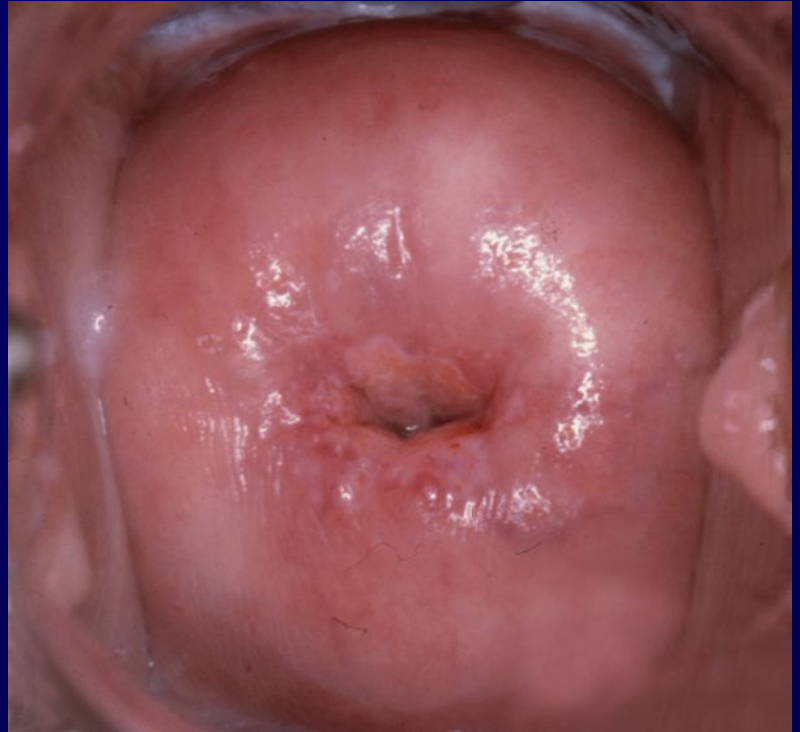
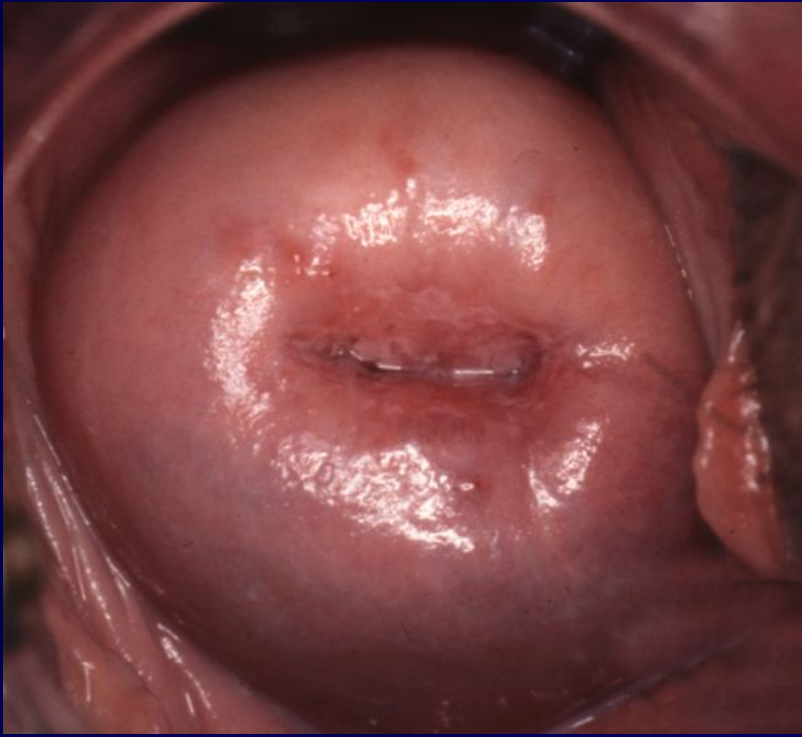
- cold-knife
- laser conization
- LLETZ

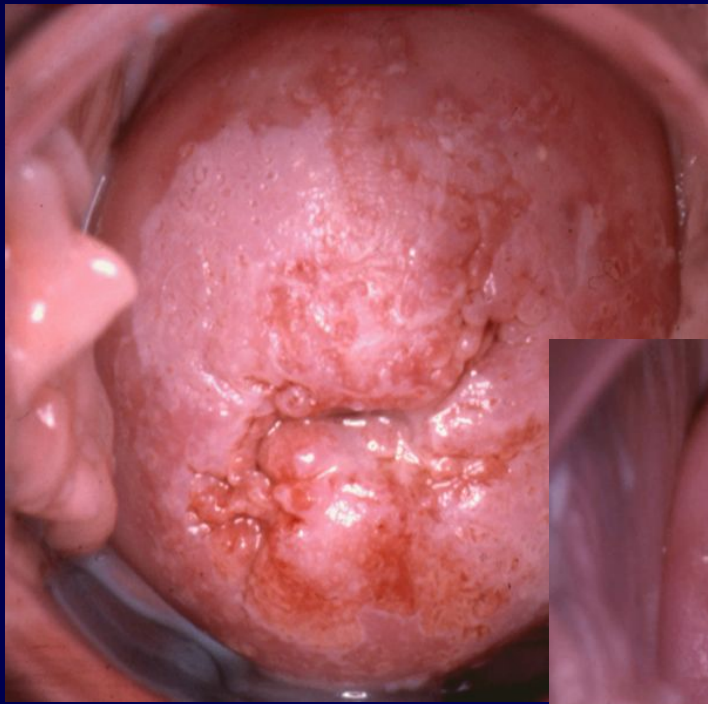
Excision is necessary in:

- Unsatisfactory examination
- Large lesions
- Recurrent disease











Unless there are other compelling reasons for performing a hysterectomy, this procedure is considered

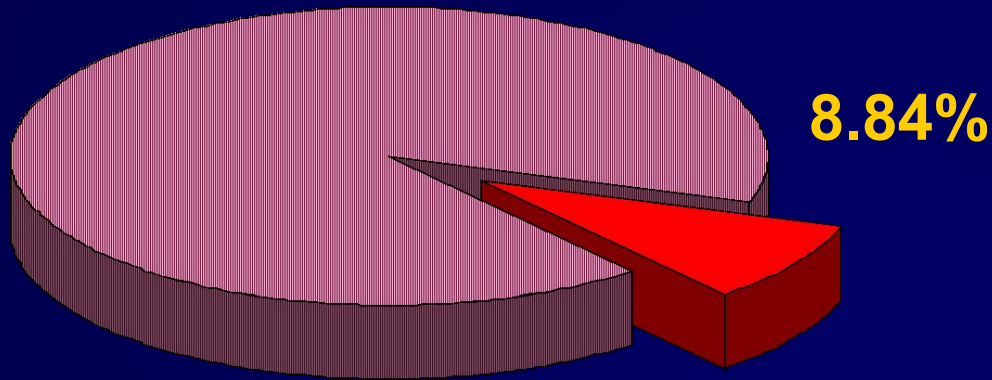
unacceptable

as primary therapy for CIN 2 and 3.

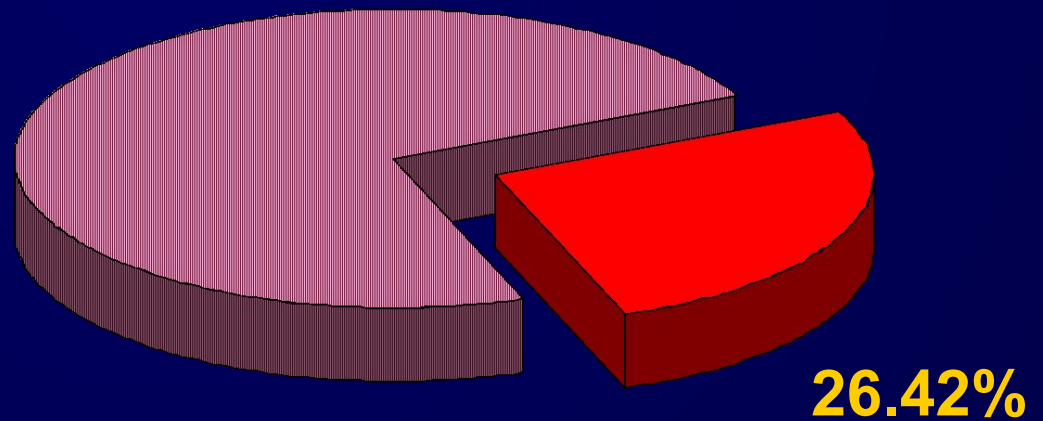
# The finding of invasive cancer after treatment of CIN 3

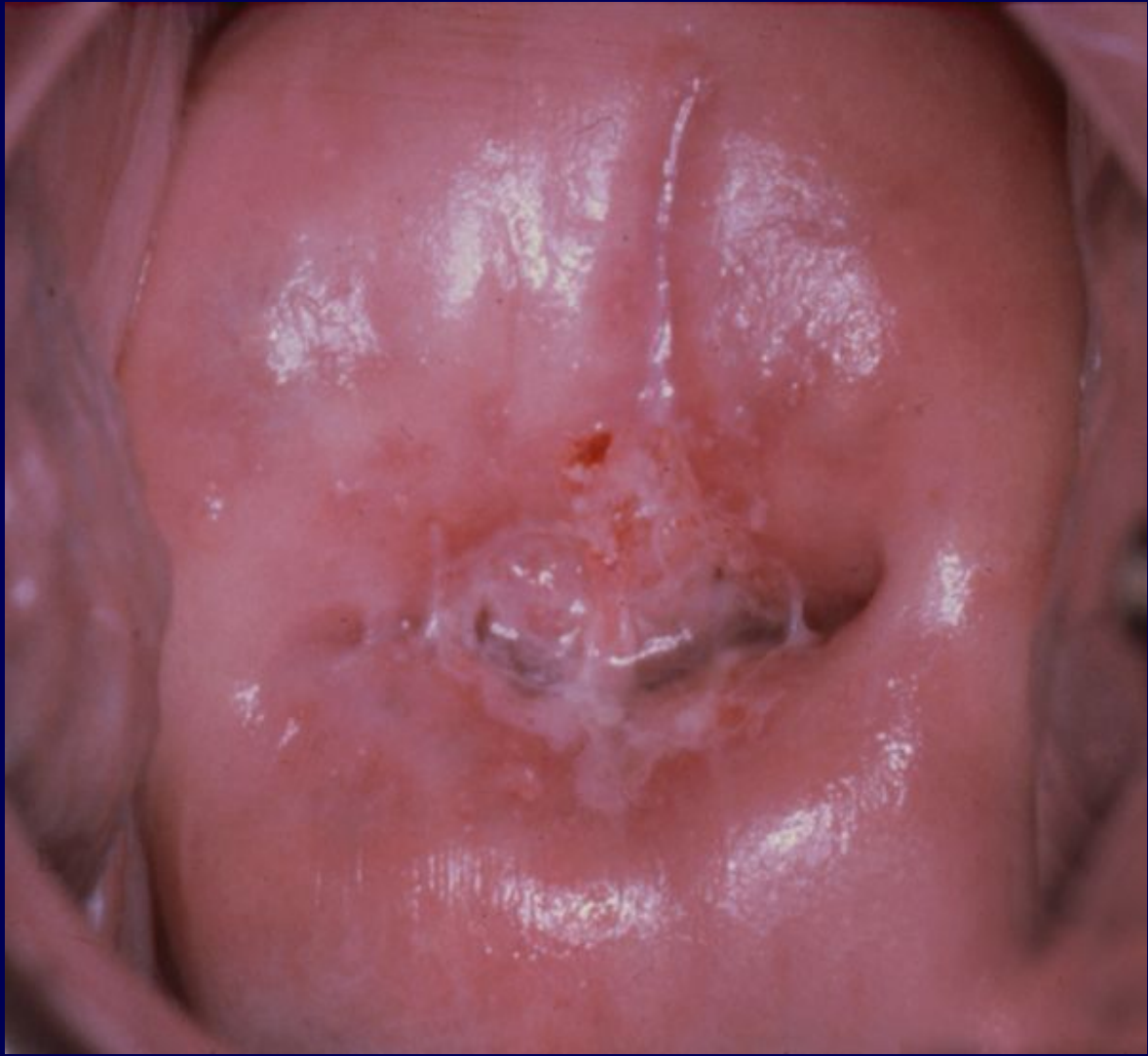
■ *CIN*    ■ *Cancer*

Conization (n=237)



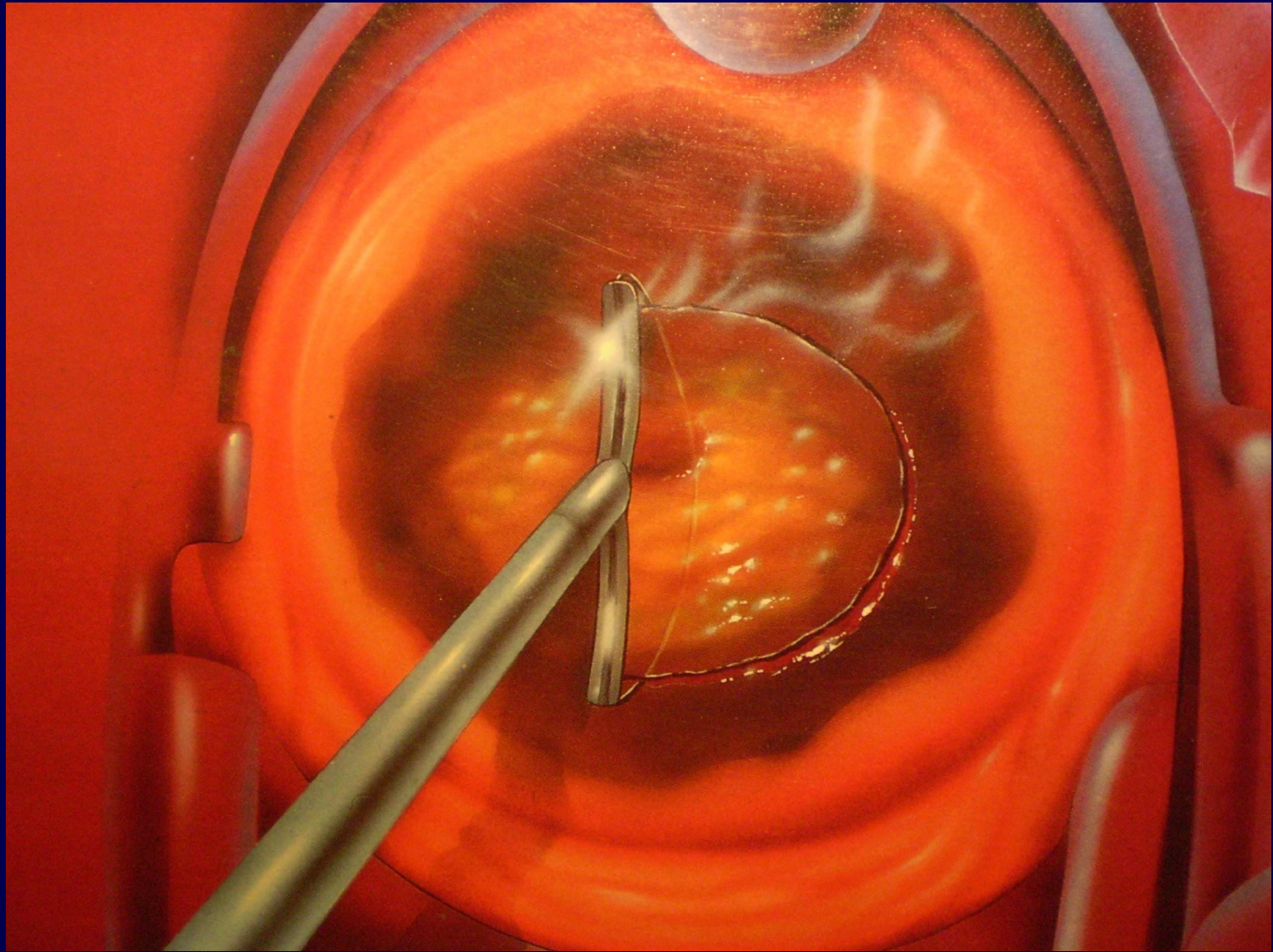
Hysterectomy (n=106)

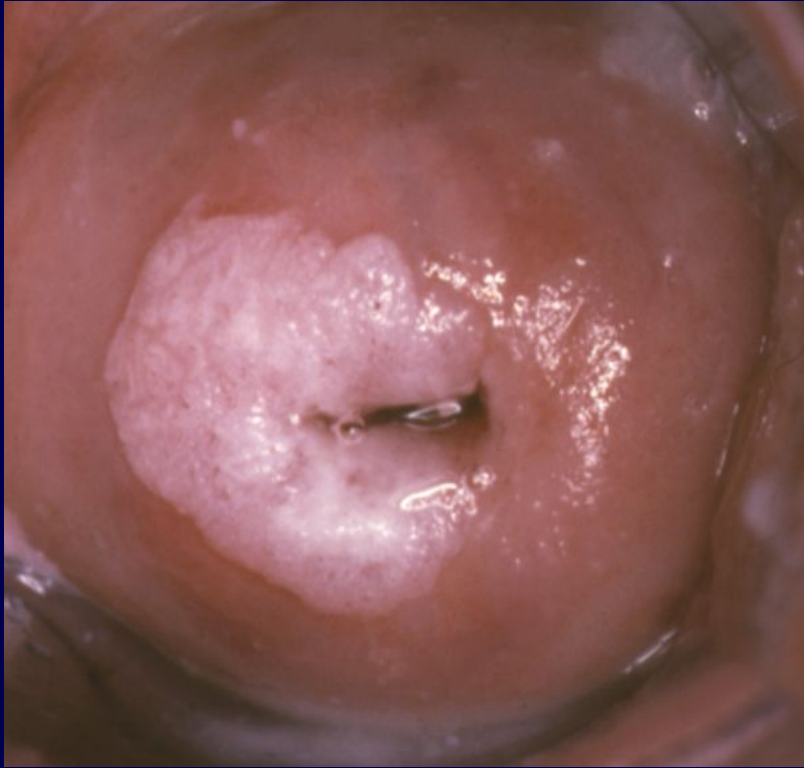














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**Microinvasive Cervical Cancer**

Vesna Kesic  
Institute of Obstetrics and Gynecology  
Clinical Center of Serbia



Treatment of cervical cancer is affected  
by the stage of the disease.



# FIGO

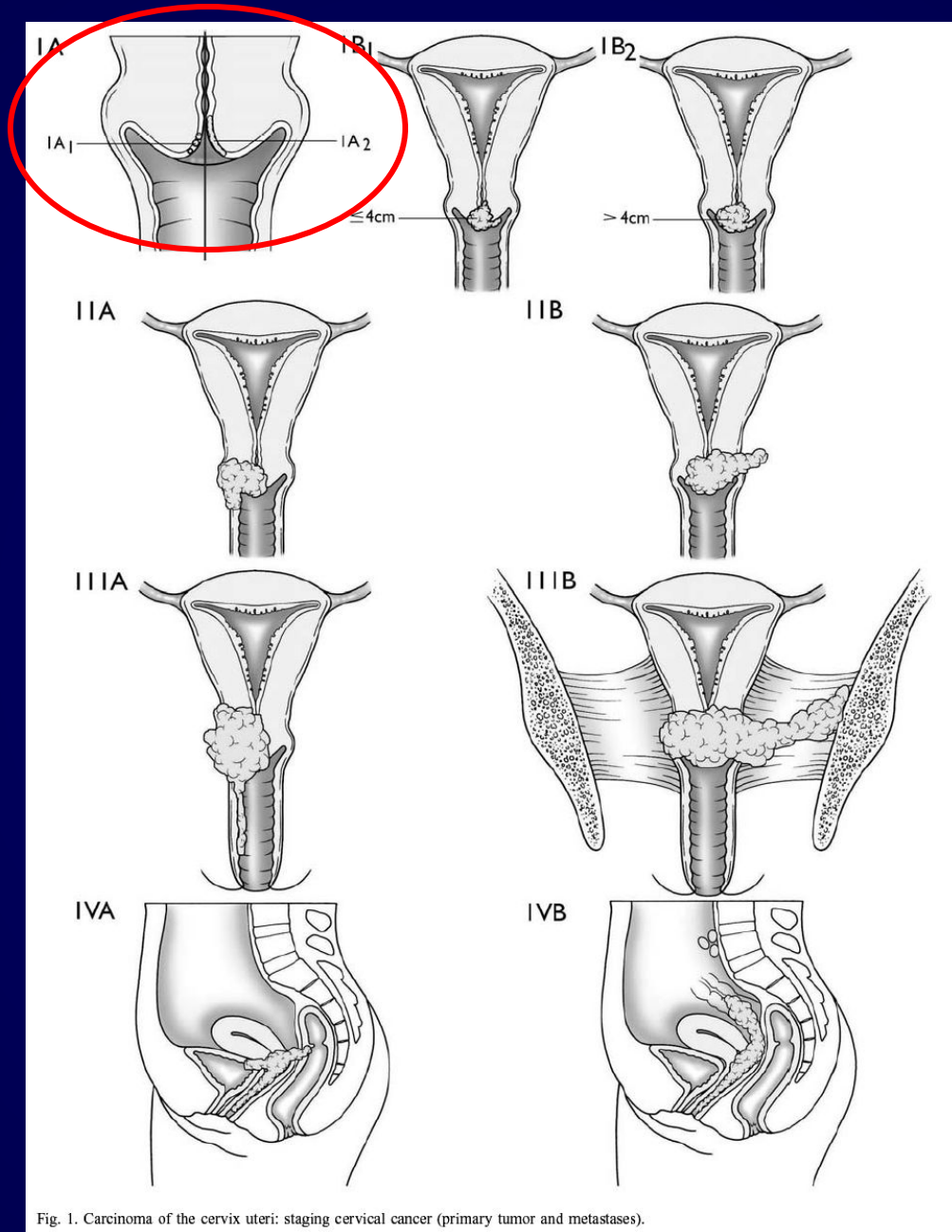
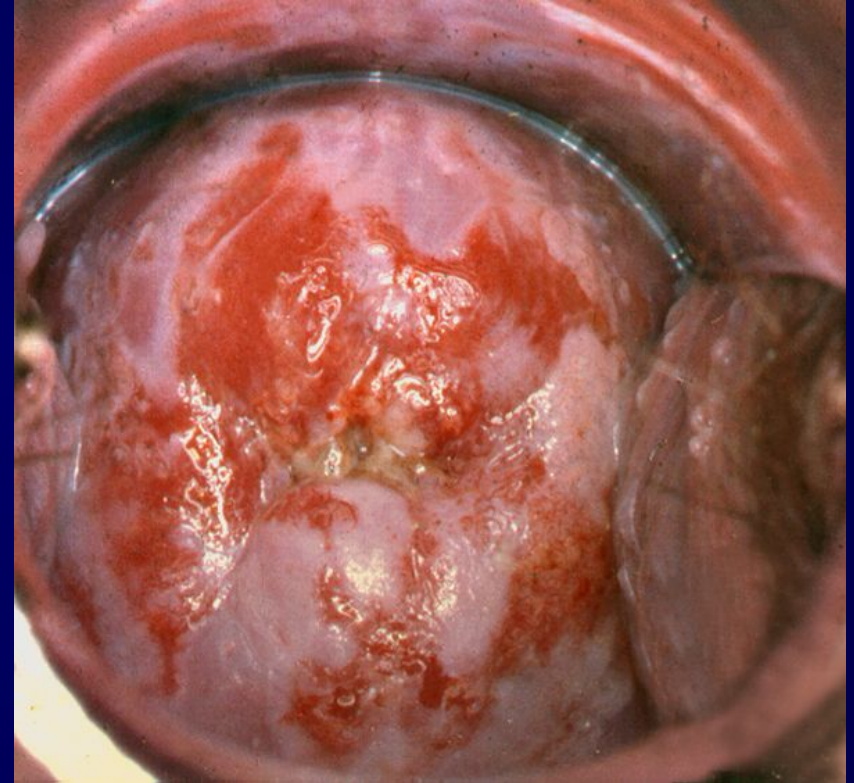
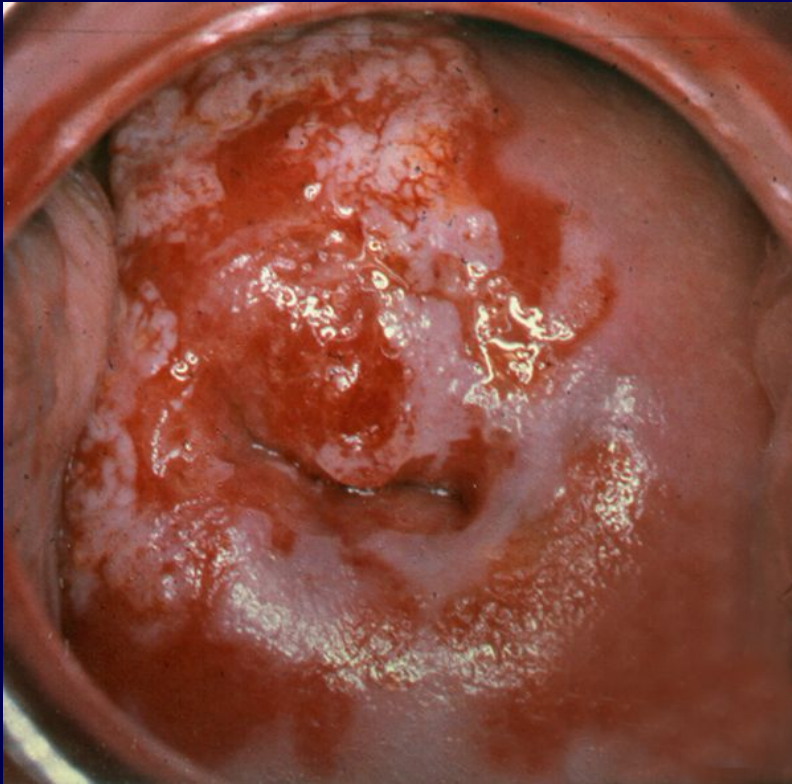


Fig. 1. Carcinoma of the cervix uteri: staging cervical cancer (primary tumor and metastases).

Montreal,  
1994

Stage I a



Microinvasive cervical cancer



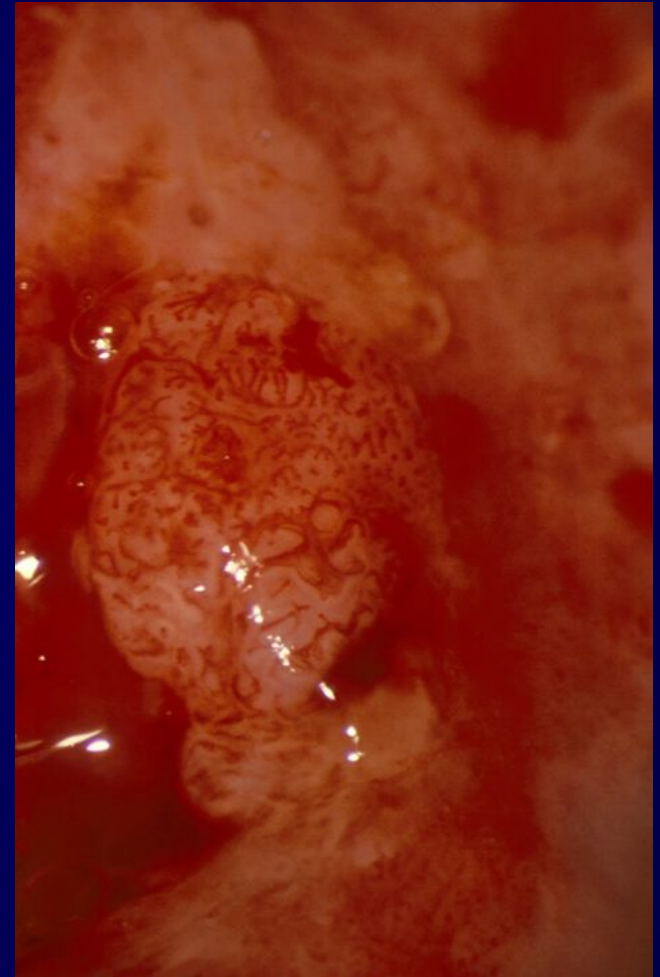


MESTWERDT

reported 1947 about 30 small invasive carcinomas.  
No evidence for metastases!

In 1953 he called these tumors  
**„microcarcinomas“**

- diagnosed neither by palpation nor with the naked eye
- diagnosed only by colposcopy and microscopically after processing the material in step serial sections.



# Invasive carcinoma of the cervix uteri (FIGO staging 1994)

**Stage I a:** Invasive cancer identified only microscopically

Stage I a 1:

Measured stromal invasion of not  $> 3.0$  mm in depth and extension of  $>$  than  $7.0$  mm

Stage I a 2:

Measured stromal invasion of  $> 3.0$  mm and not  $> 5.0$  mm in depth and extension of  $>$  than  $7.0$  mm

The diagnosis of stage Ia cervical cancer should be based on cone biopsy !

Were the microinvasive lesion and its preinvasive components removed in their entirety?

What are the dimensions and histologic characteristics of the lesion?

The excision margins should be free of CIN and invasive disease !

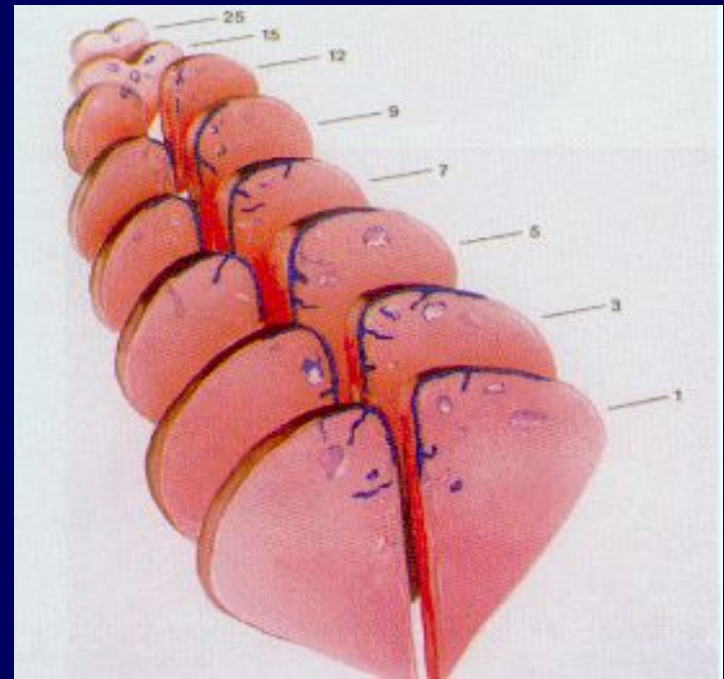
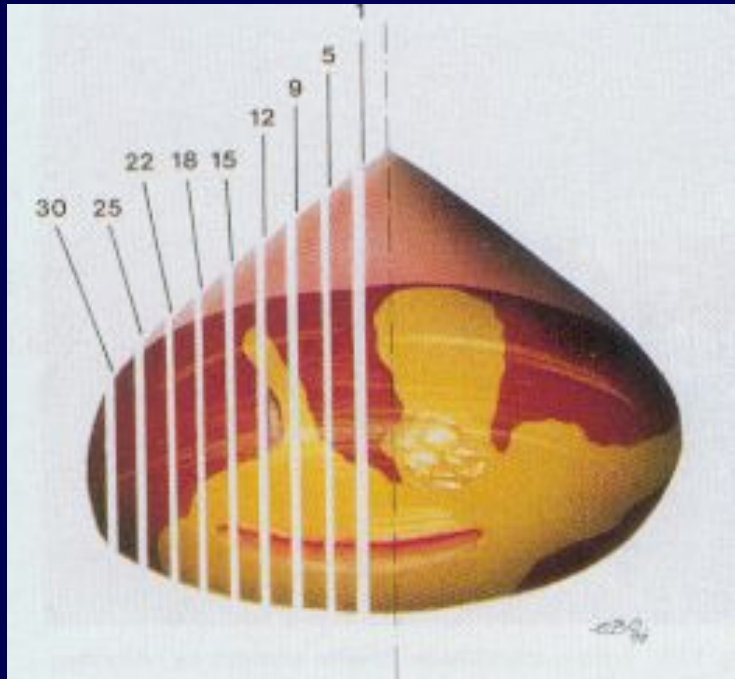


If the invasive lesion is excised  
but CIN extends to the excision margin  
then a repeat excision should be performed

- to confirm excision of the CIN
- to exclude further invasive disease.

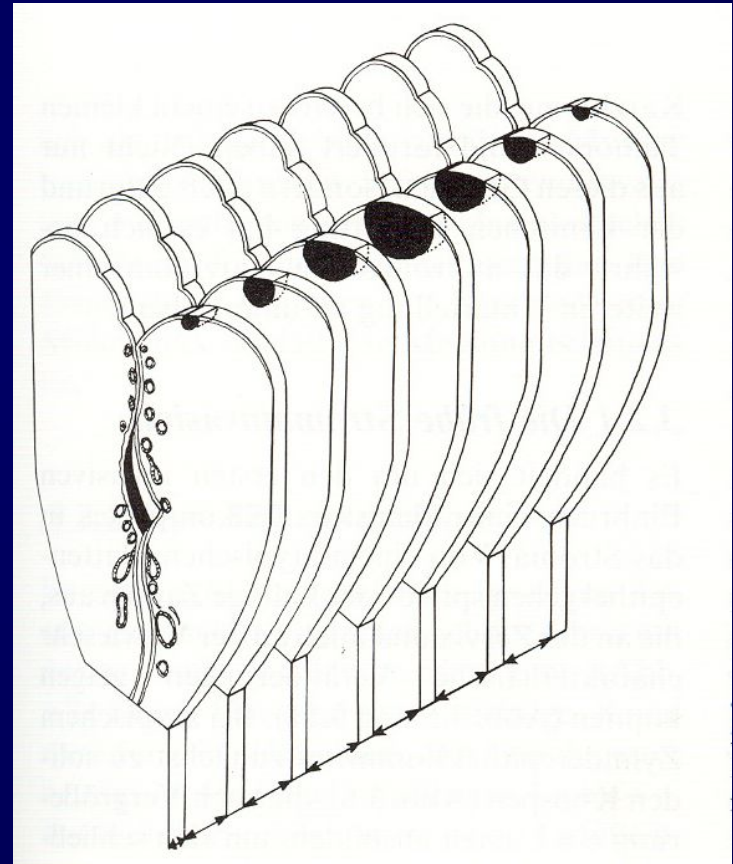
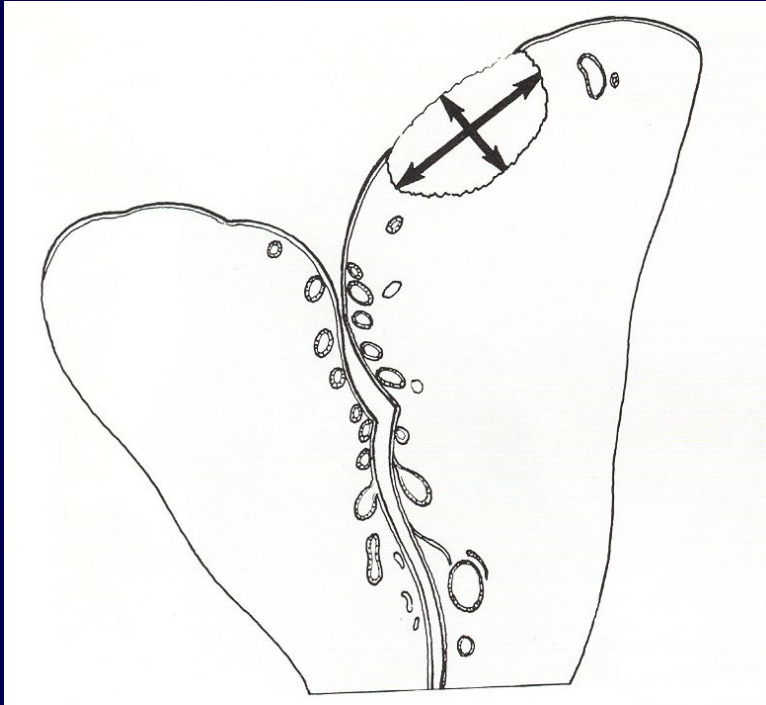
This should be performed even in those cases  
planned for hysterectomy  
to exclude an occult invasive lesion requiring radical surgery

# Histologic Processing of the Cone



Serial sections à 400  $\mu\text{m}$  intervals

# Measurement of tumor diameters



Ideally, the management of microinvasive cancer Stage Ia should be planned in cooperation with an experienced pathologist.

Unfavourable prognostic criteria for microinvasive carcinoma include

- Deeper stromal invasion
- Capillary-like space involvement
- Poor differentiation
- Confluent growth pattern

## Stage Ia cervical cancer

Depth of invasion	LVI	Risk of node metastases
0-3	-	< 1 / 1000
0-3	+	2 / 100
3-5	-	2 / 100
3-5	+	5 / 100

Each patient with microinvasive cancer  
should be evaluated  
individually !



If distant spread is very unlikely,  
simple but complete excision of the lesion  
suffices.

If it is likely that the cancer has spread,  
than an extended operation  
should be performed.

## The reasons of conservative surgery in microinvasive cervical cancer

- To preserve fertility
- To prevent the potential complications of radical treatment.

# Management of stage I cervical cancer

Stage I a 1

depth <3 mm

width <7 mm

no lympho-vascular invasion



- Conization
- Simple hysterectomy in women who do not wish to retain fertility or if indicated for other reasons

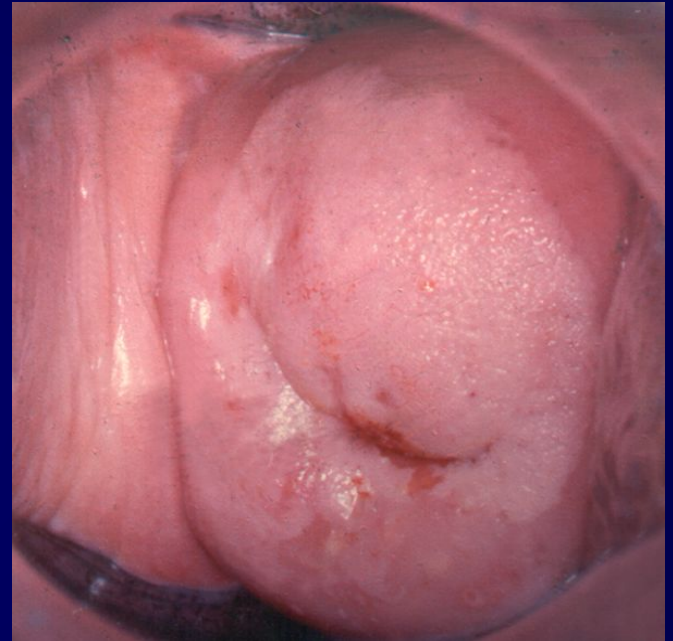
## Management of stage I a 2 cervical cancer

Stage I a 2

depth <5 mm

width <7 mm

no lymph vascular invasion



- Complete excision (conization or extrafascial hysterectomy)
- Pelvic node dissection ?

Local and distant spread  
pelvic and/or parametrial node involvement

Smallest tumor with one pelvic lymph node  
metastasis

(no vascular invasion)

3 mm depth    17 mm width

**F. Girardi et al.: Small FIGO Stage IB Cervical Cancer.  
Gynecol Oncol 55, 427-432 (1994)**

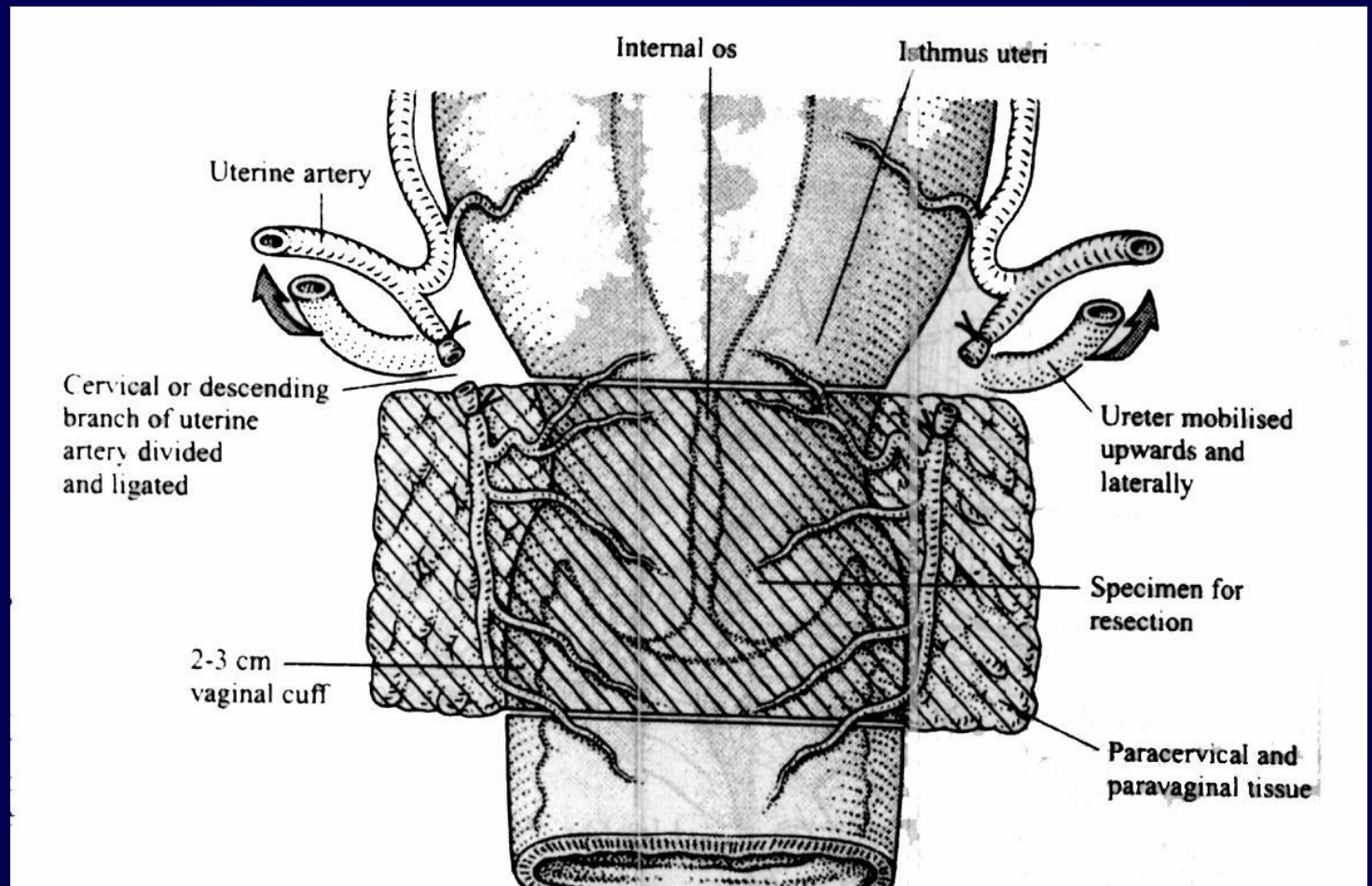


## Treatment options for stage I a with lympho-vascular invasion

- Modified radical hysterectomy (stage Ia1) or radical hysterectomy (stage Ia2) with pelvic node dissection
- Radical trachelectomy with laparoscopic pelvic node dissection if fertility desired



# Radical vaginal trachelectomy with laparoscopic pelvic lymphadenectomy



Recurrence rates after trachelectomy  
are comparable  
to radical hysterectomy (approximately 4%)

Plante et al. Gynecol Oncol. 2004 ;94:614-23

# Radical trachelectomy

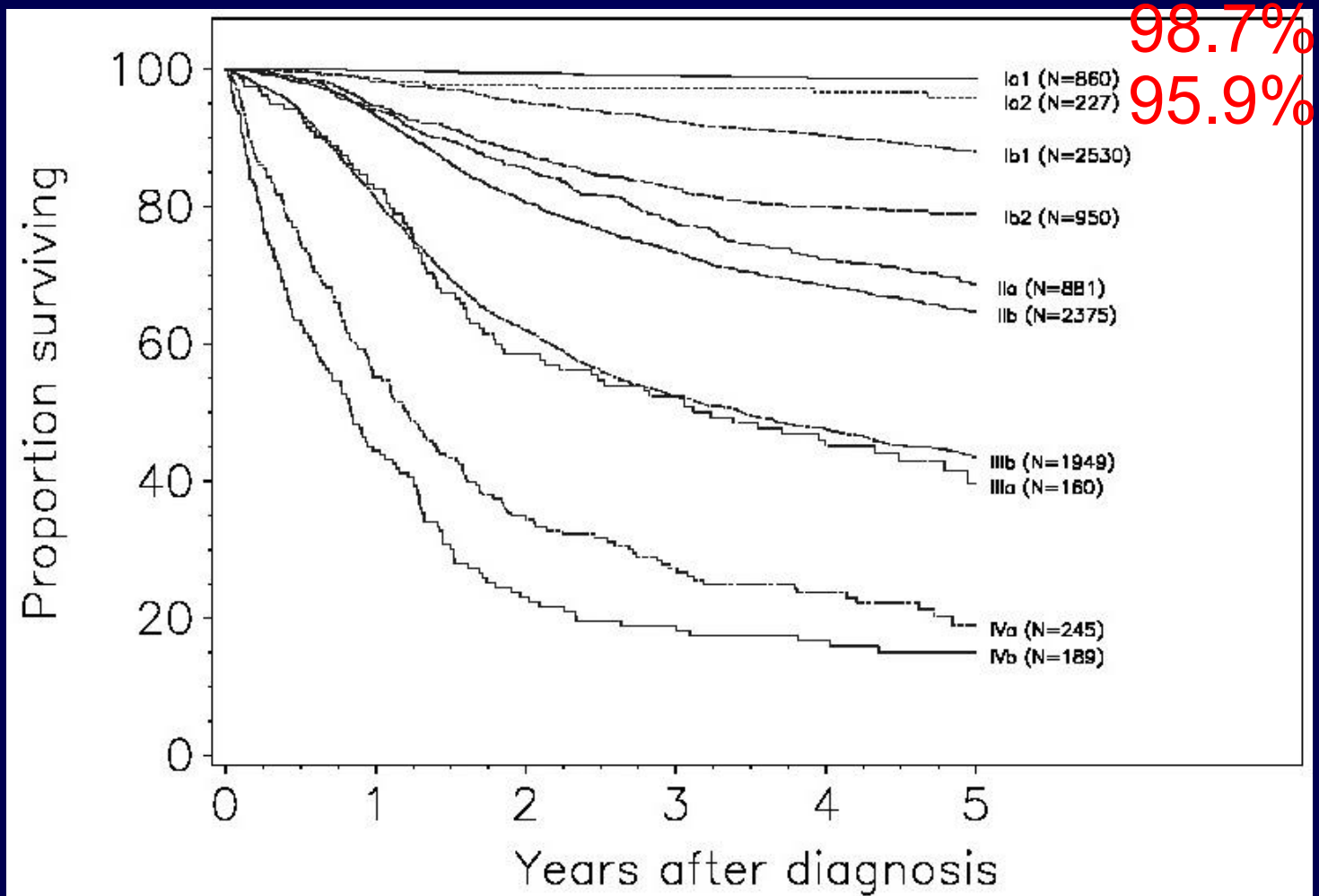
Successful pregnancy in 26.5% cases

Plante et al. Gynecol Oncol. 2004 ;94:614-23

## Prerequisites for trachelectomy

- Strong fertility desire
- Patient < 40 years
  
- Tumor < 2 cm (Ia, Ib1)
- No lymphovascular invasion
- Negative lymphnodes
- Favorable histology
- Length of cervix > 2 cm

# Cervical cancer- survival by FIGO stage



FIGO 25. Annual report, 1996-1998



