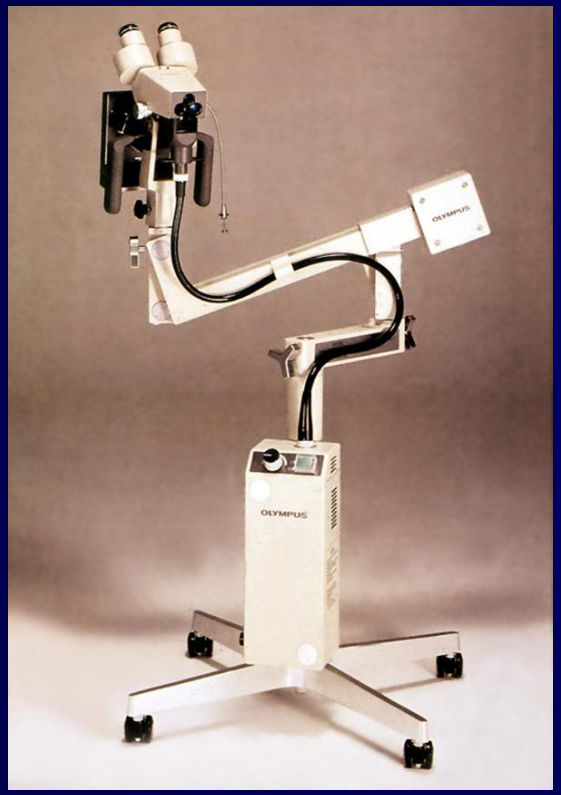
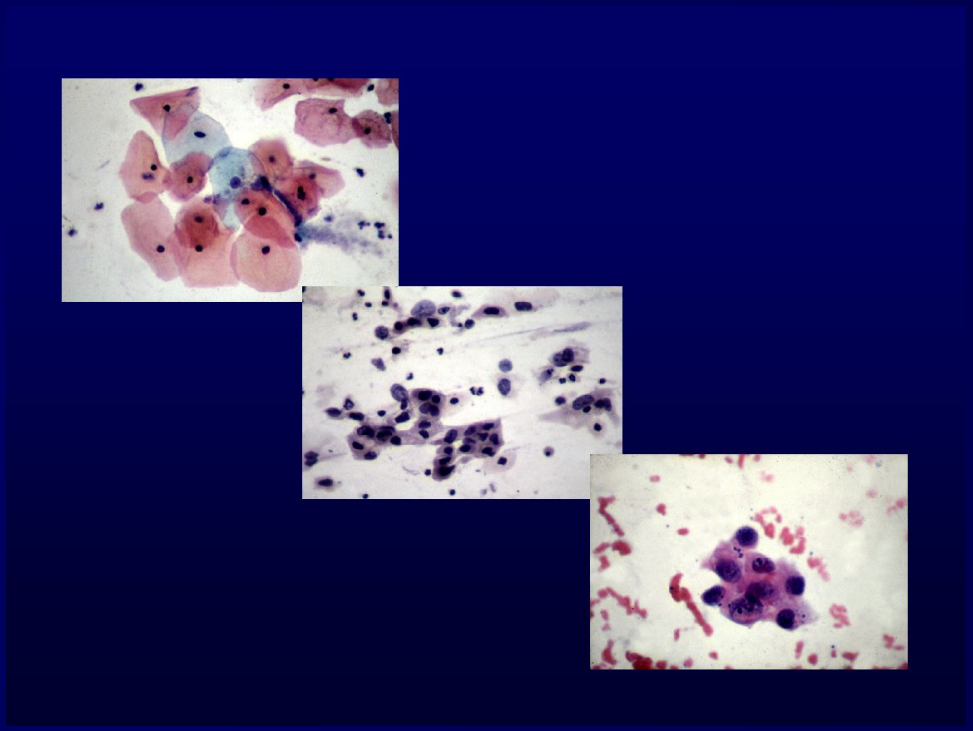
International Scientific Conference
Prevention of Cervical Cancer: Looking into the Future
Moscow, 31.March-2. April

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

Vesna Kesic
Institute of Obstetrics and Gynecology
Clinical Center of Serbia

Hans Hinselman
Colposcopy, 1924





George Pappanicolaou
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

CIN 2
CIN 3

L-SIL

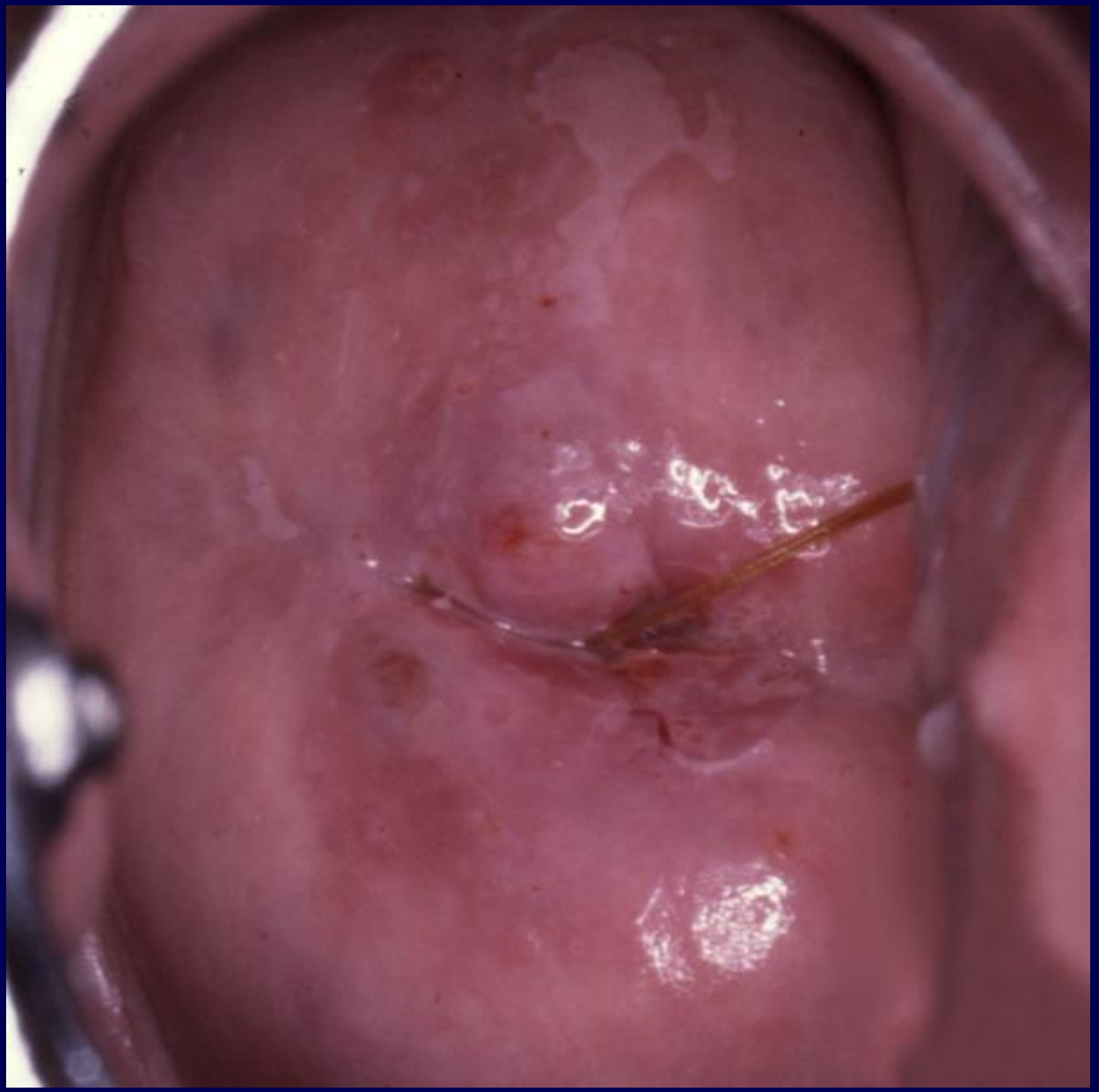
- High proportion of women affected
- Low risk of progression
- Significant regression may occur

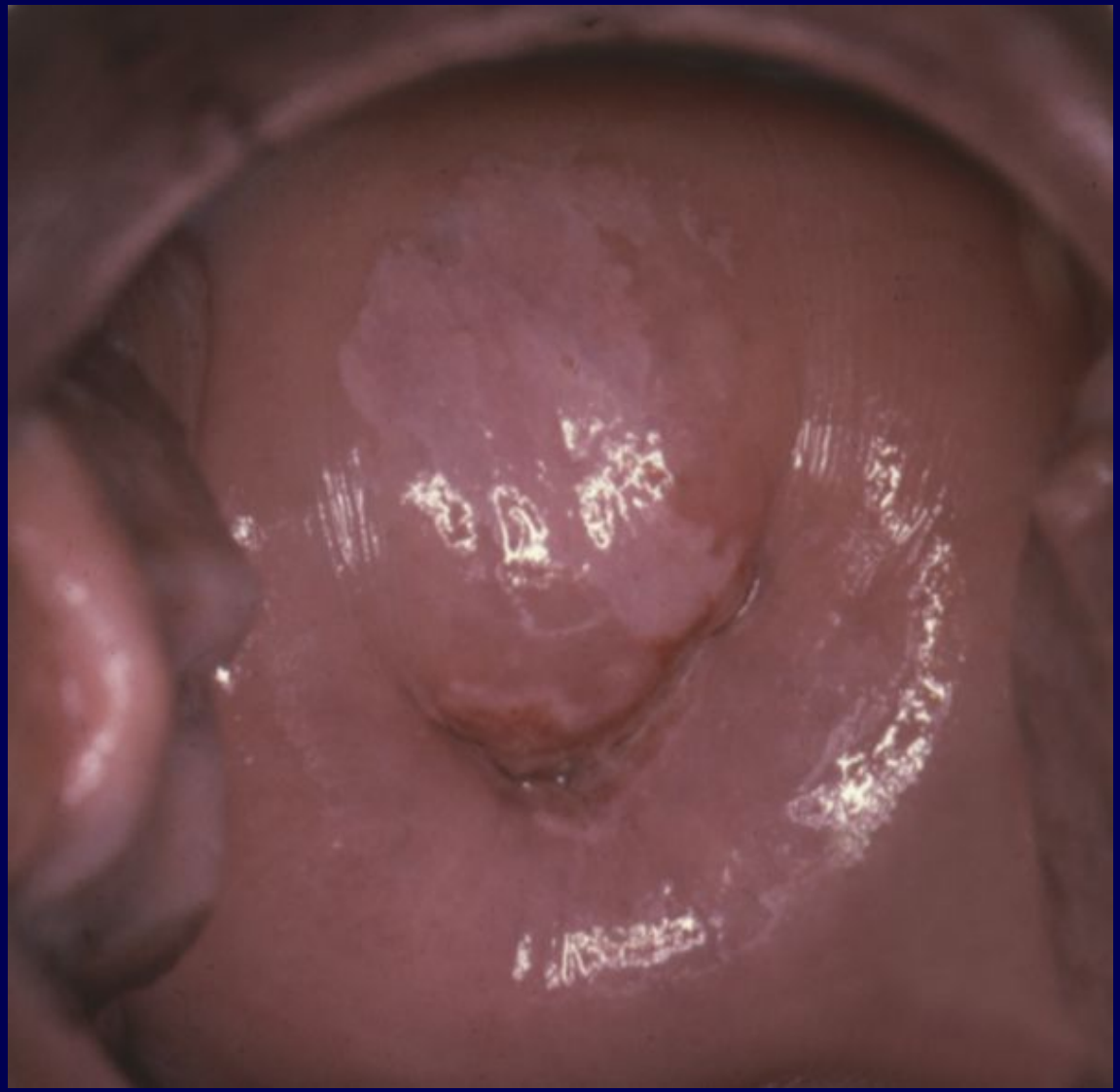
Management of CIN 1 (L-SIL)

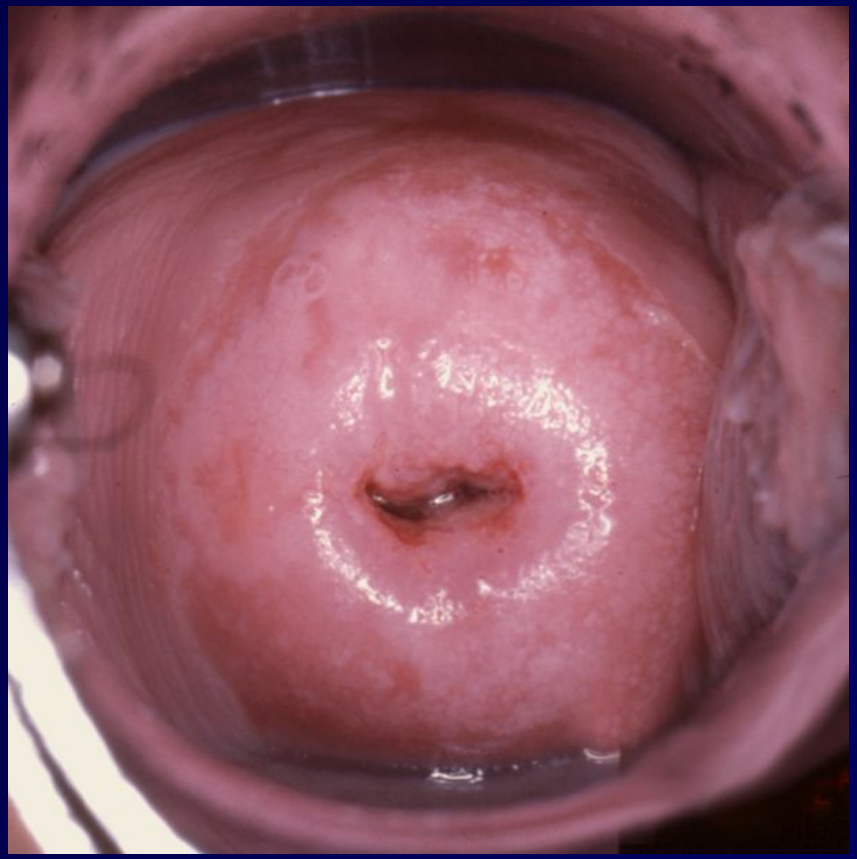
- Conservative
- Active

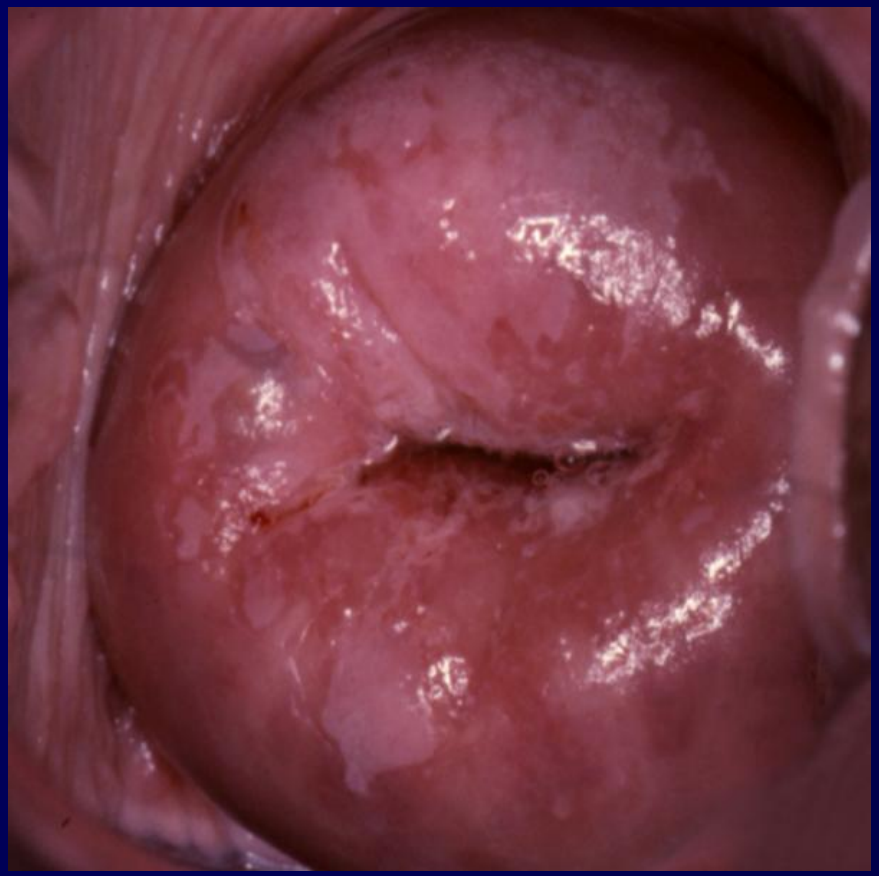
Management of L-SIL

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





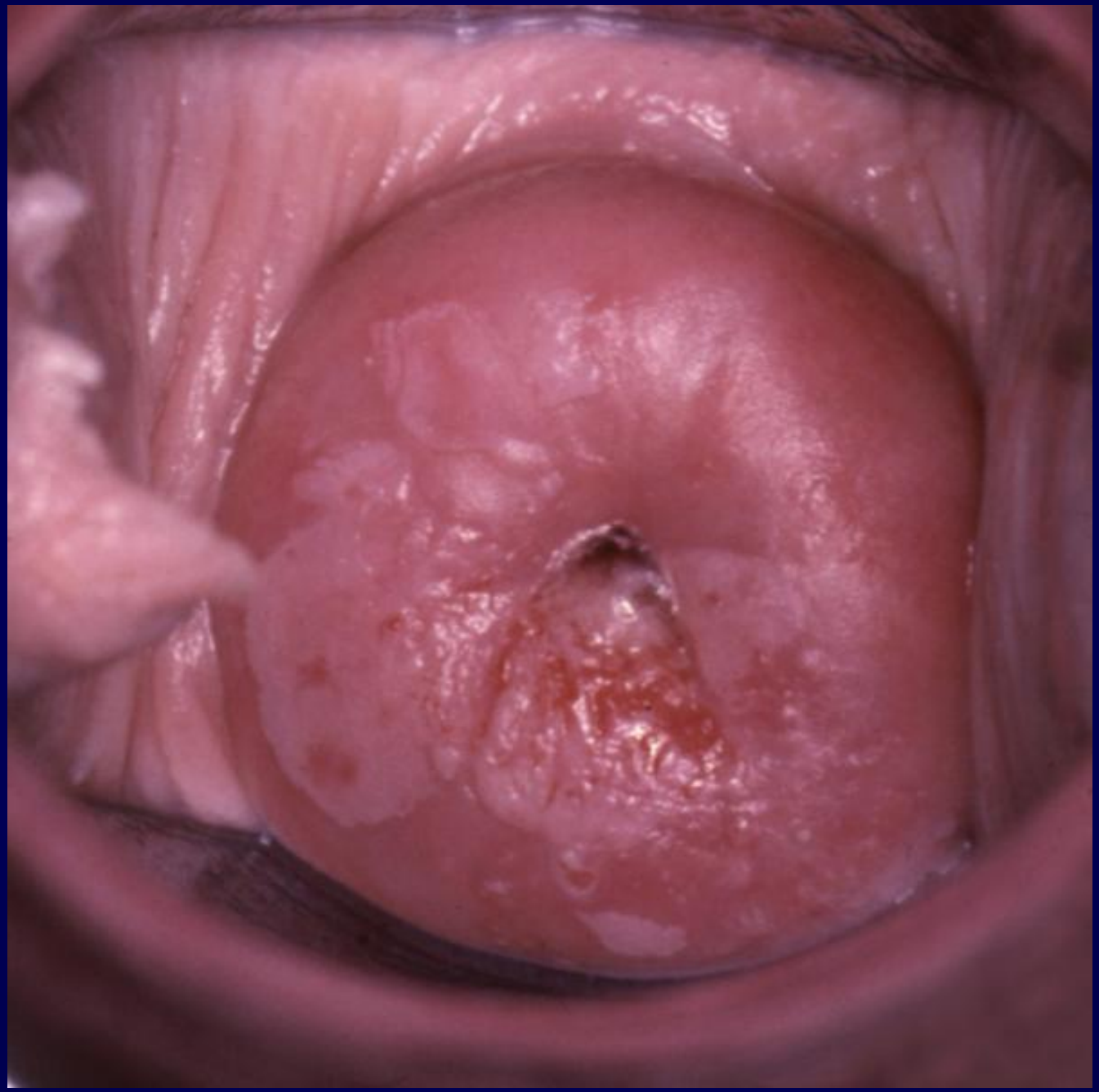


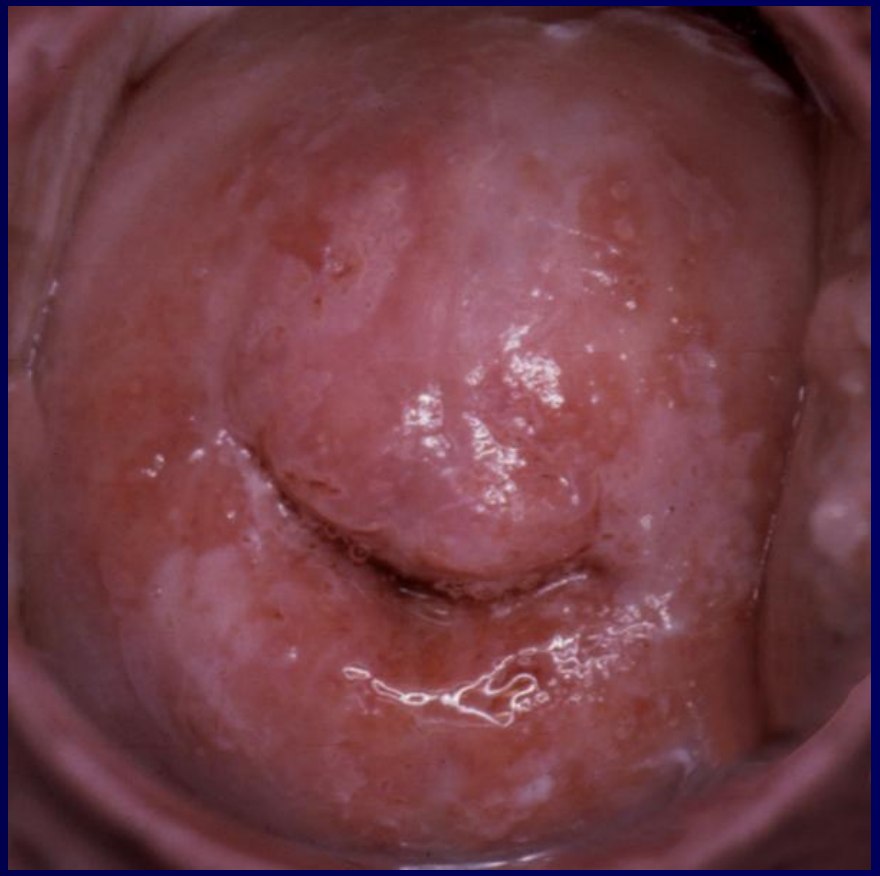


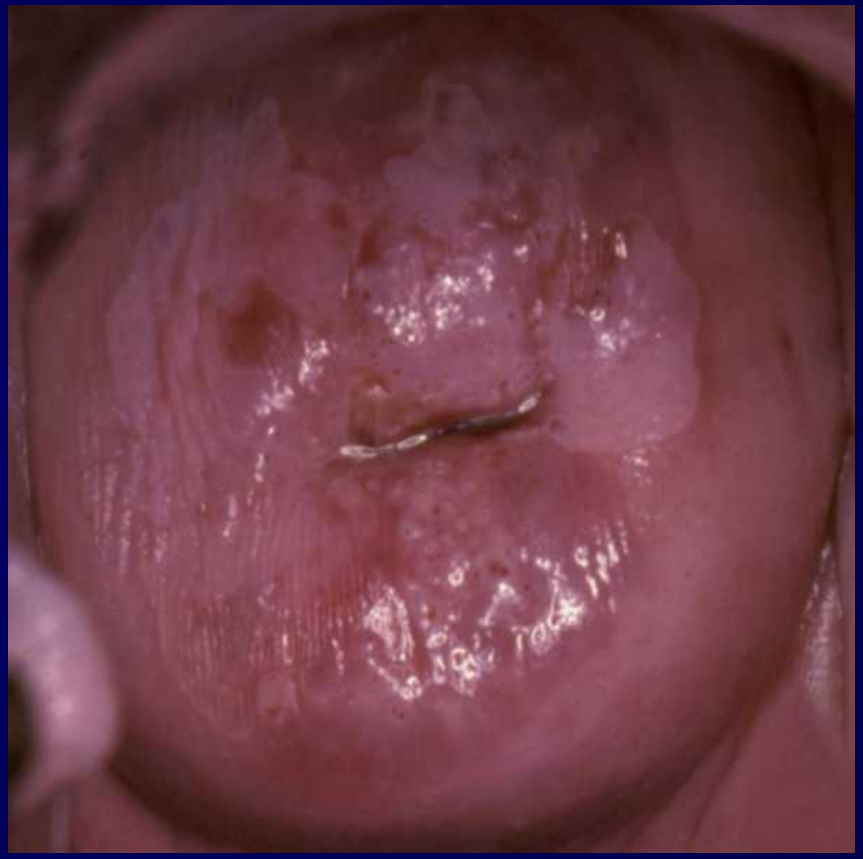
Expectant management of CIN 1 is not totally without some risk...

……. because of the:

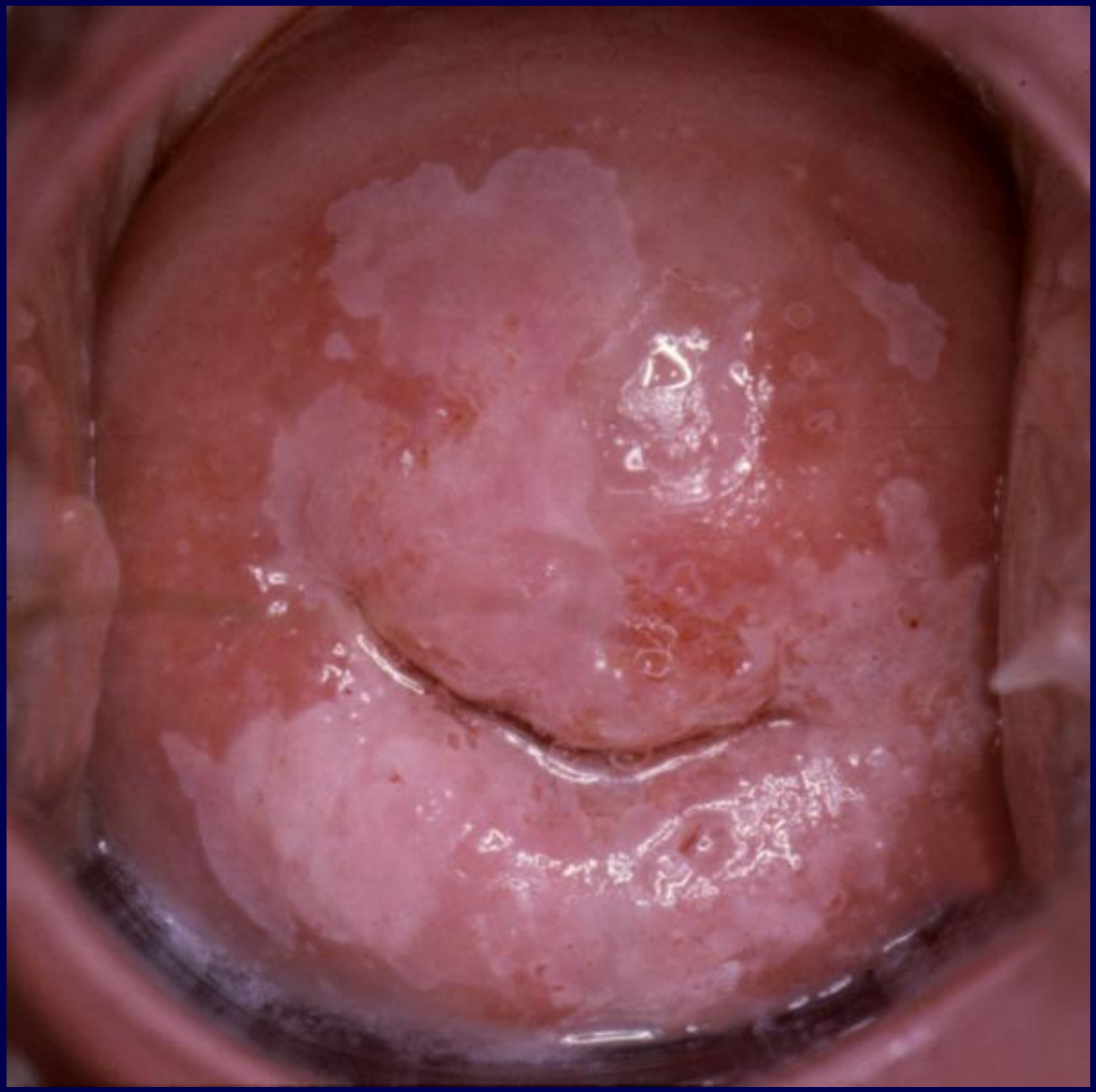
- potential for a high-grade lesion
  to develop during follow-up
- already existing high-grade lesion
  that was not correctly diagnosed
- loss to follow-up







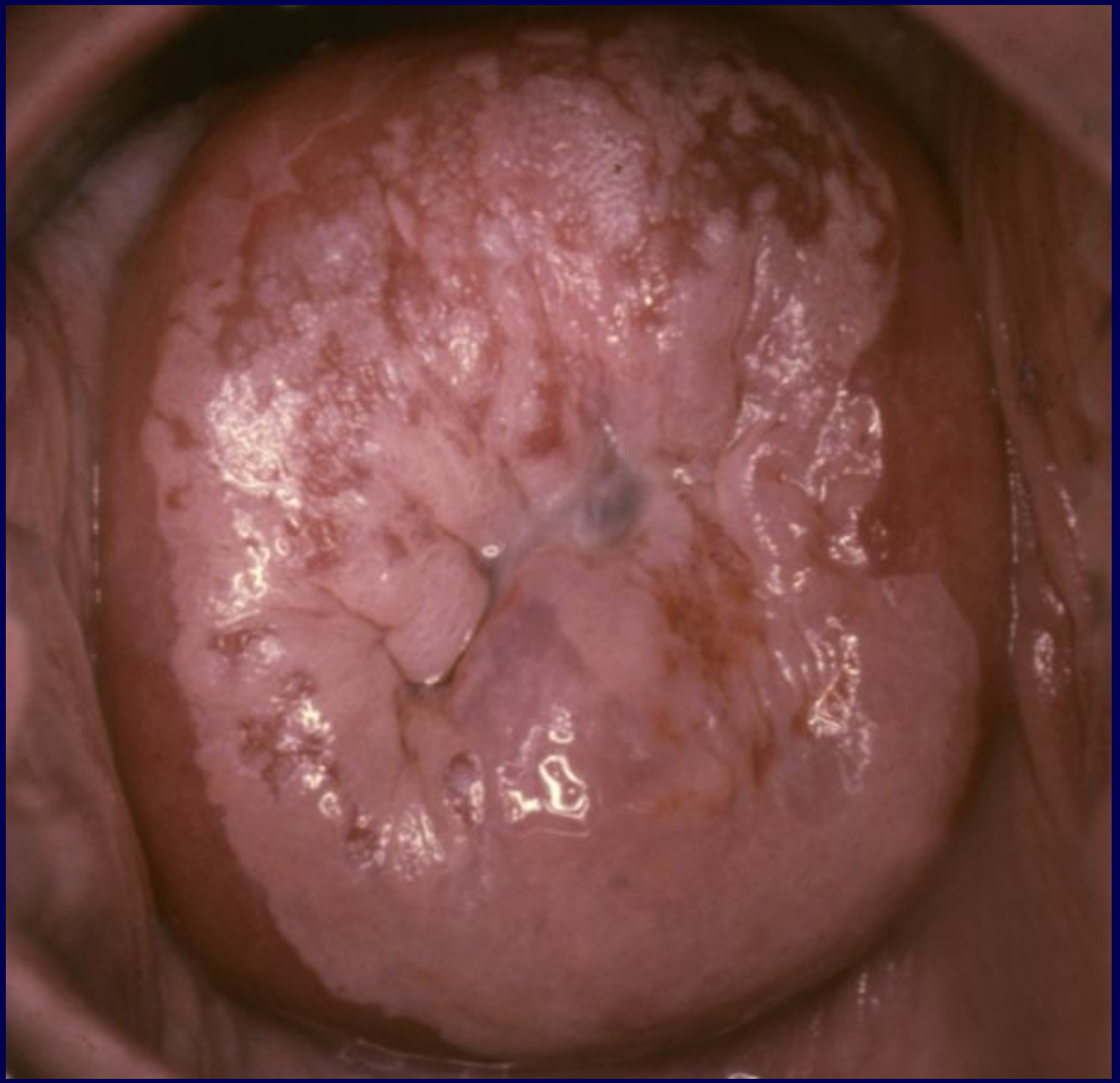
If large lesions or persistent lesions
are present or if the patient is at risk
for being lost to follow-up,
active treatment may be favored

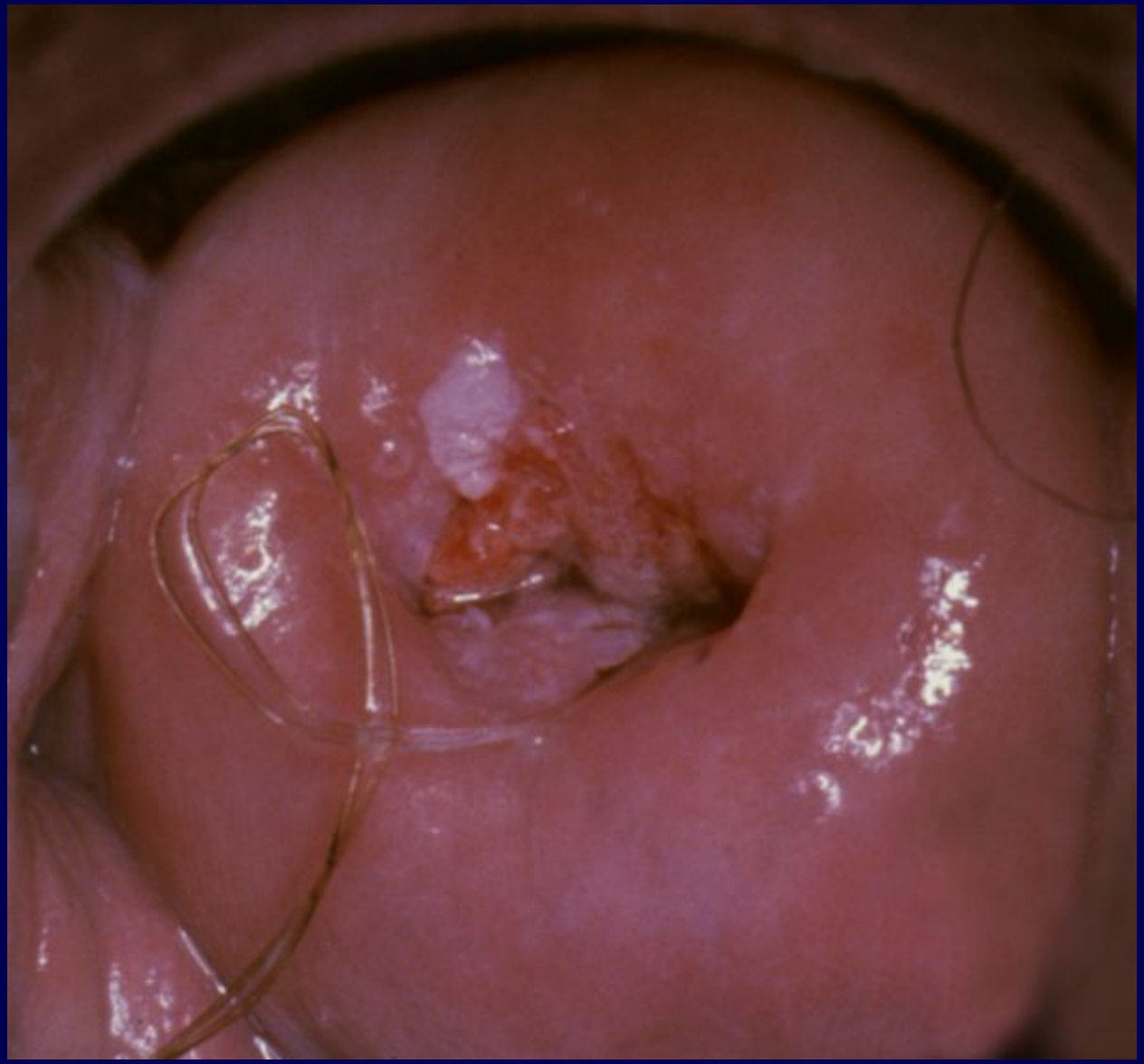


Active management of women with CIN 1 is recommended in the following cases:

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

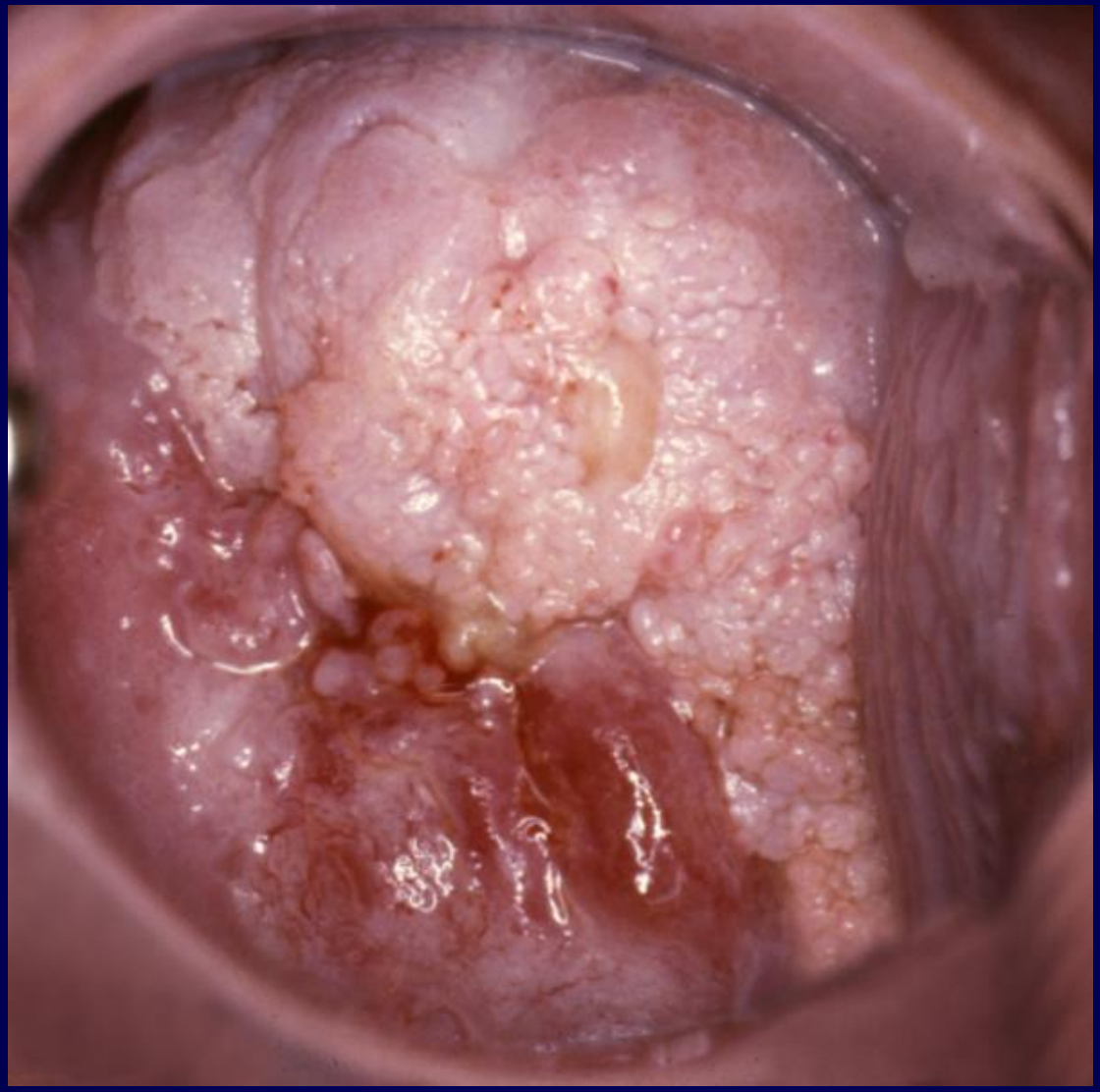
Women with biopsy confirmed
H-SIL (CIN 2 and 3)
have significant risk of disease progression
to invasive cancer and should be treated.

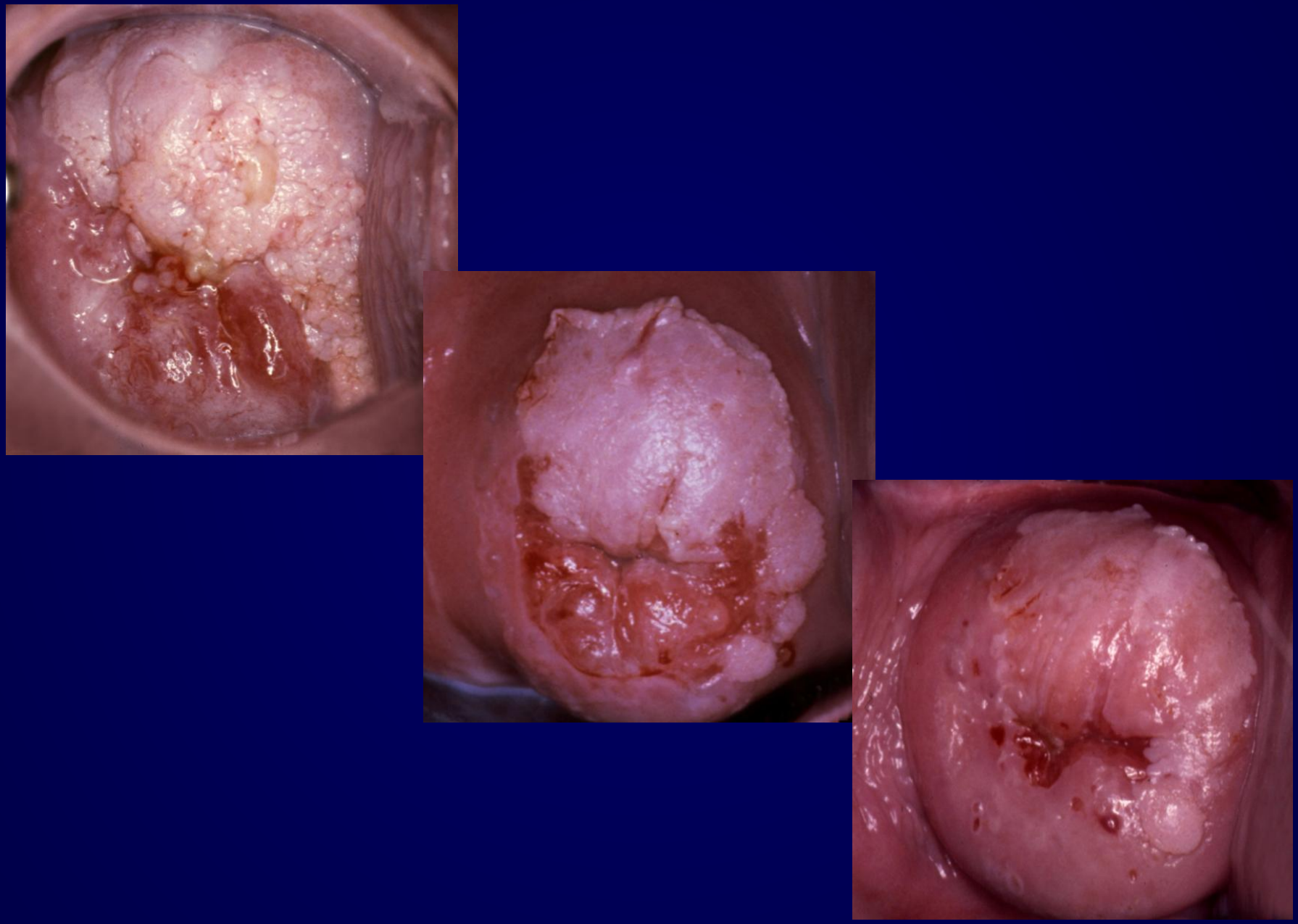




The expectant management of CIN 2 and 3 with repeat cytology and colposcopy is not acceptable except for:

- pregnant patient
- very young patients with CIN 2





Destruction or Excision ?

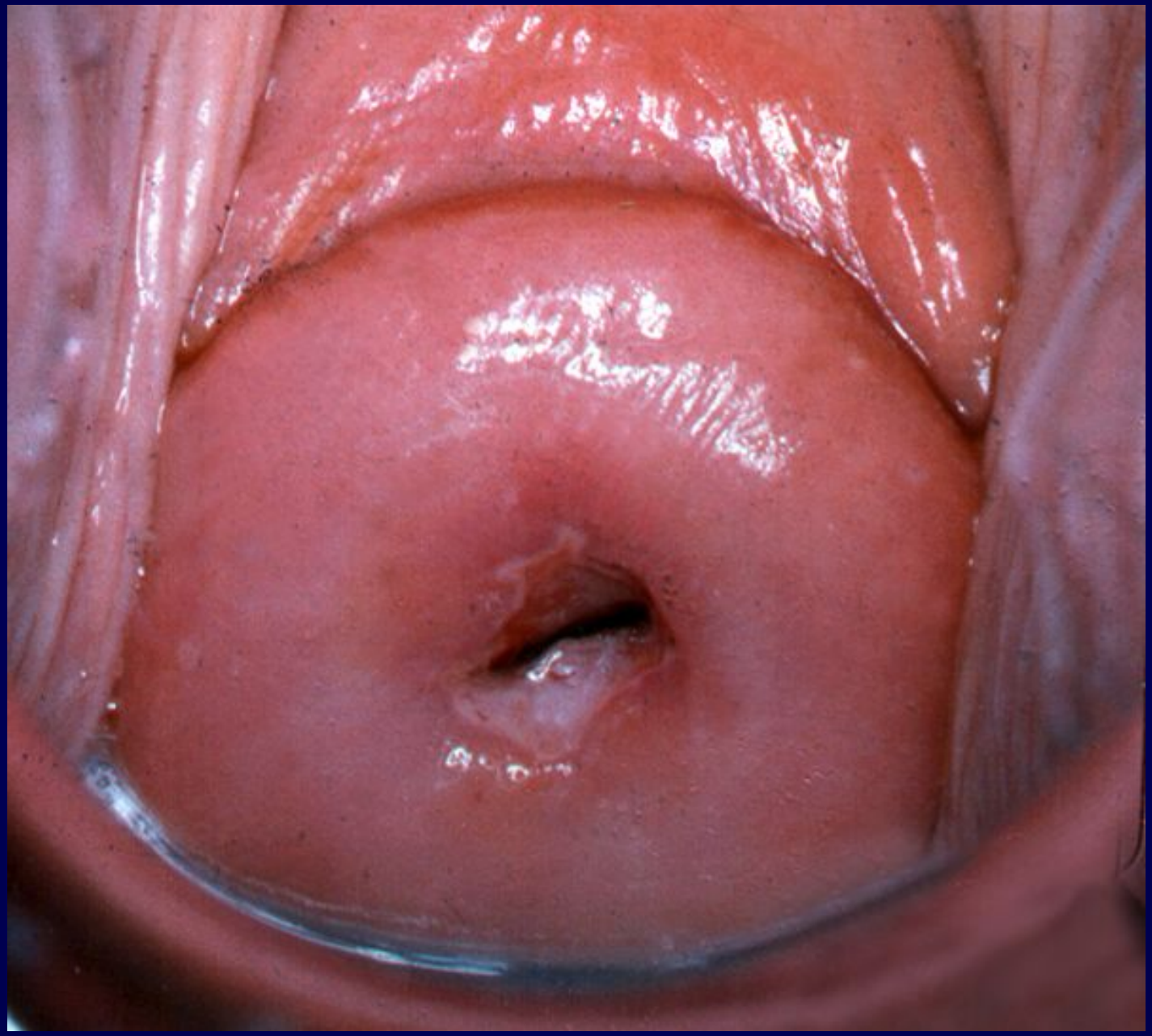
Management of HSIL

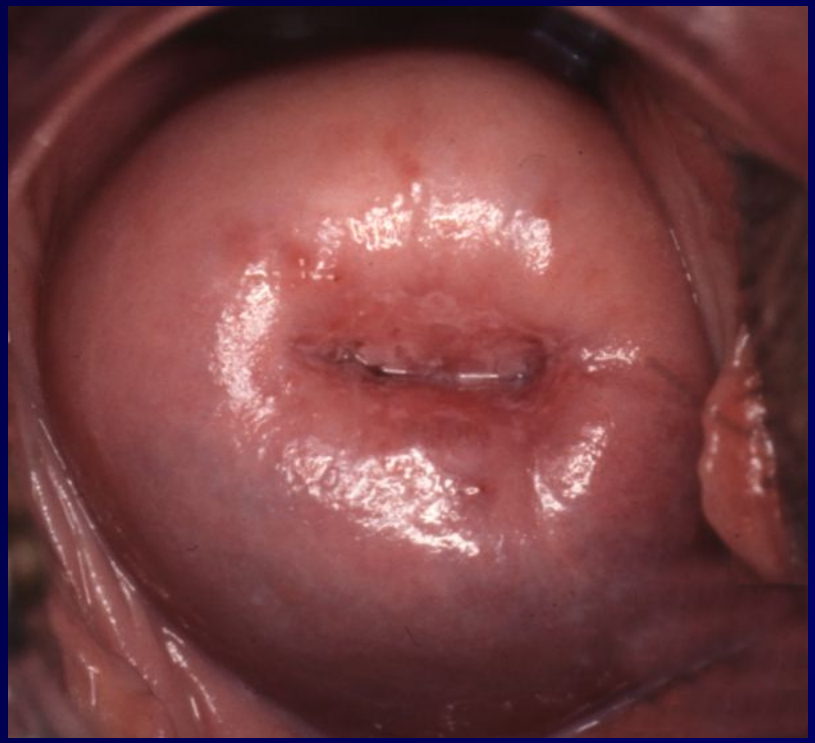
excision recommended

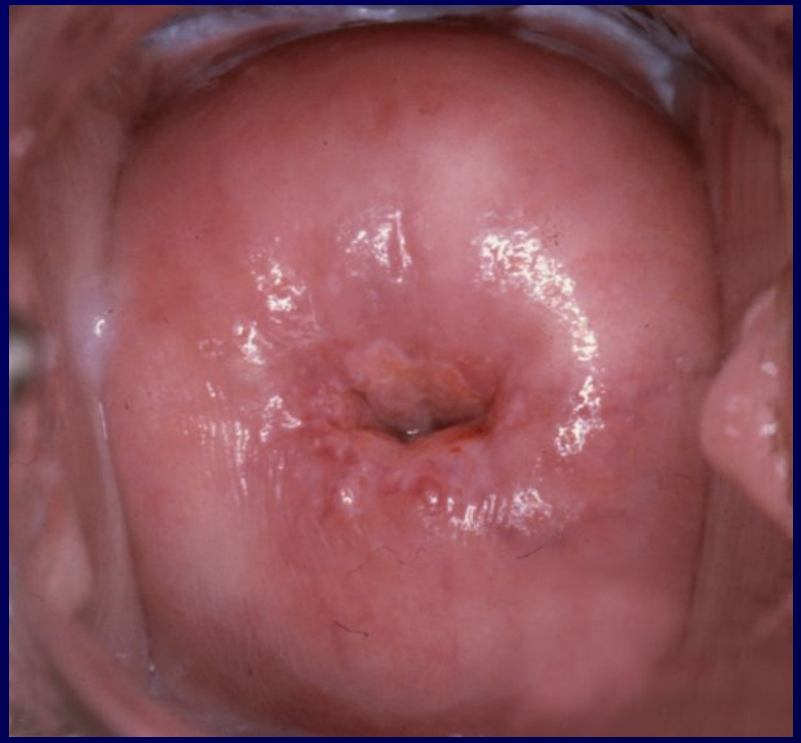
- cold-knife
- laser conization
- LLETZ

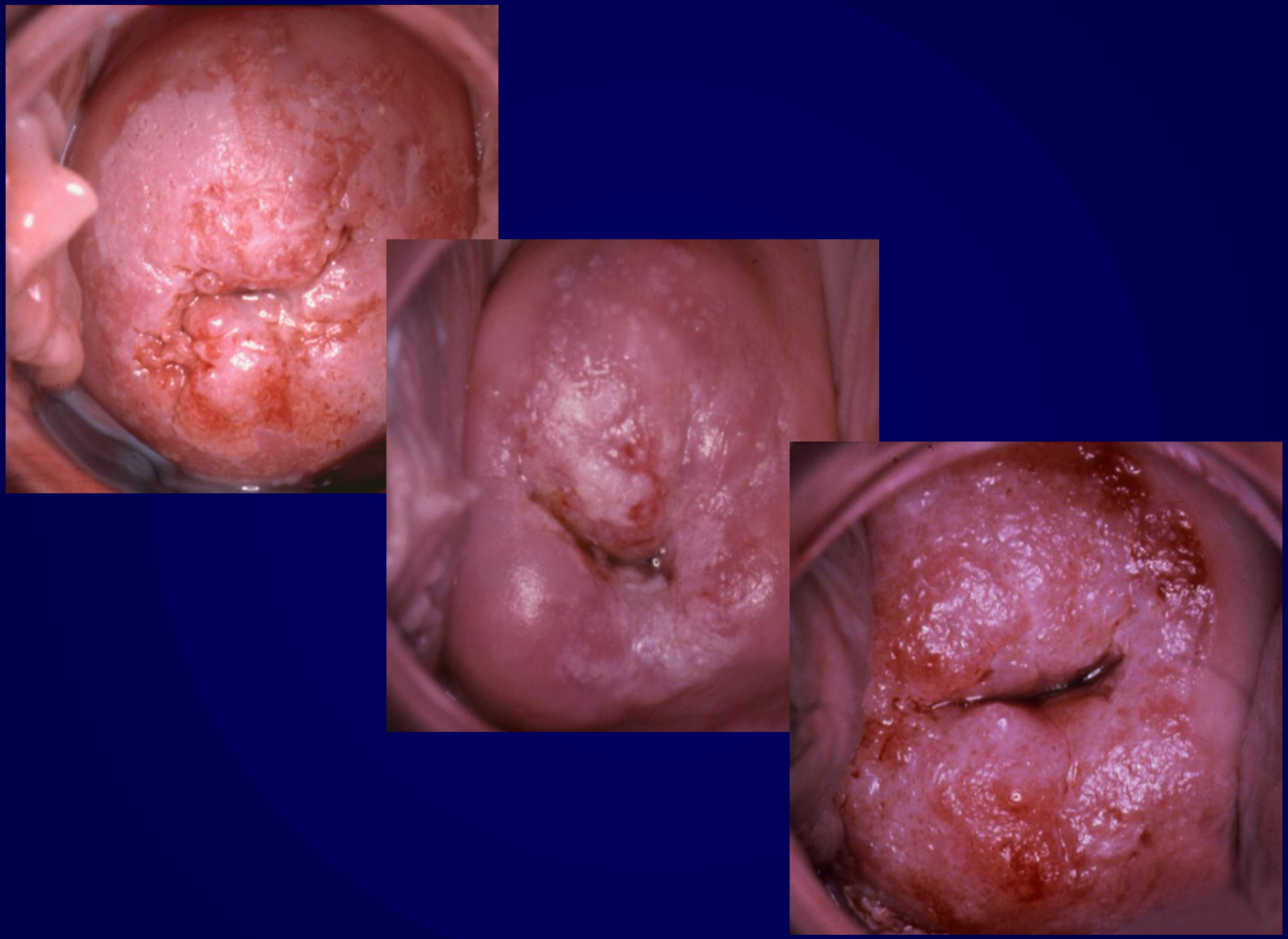
Excision is necessary in:

- Unsatisfactory examination
- Large lesions
- Recurrent disease







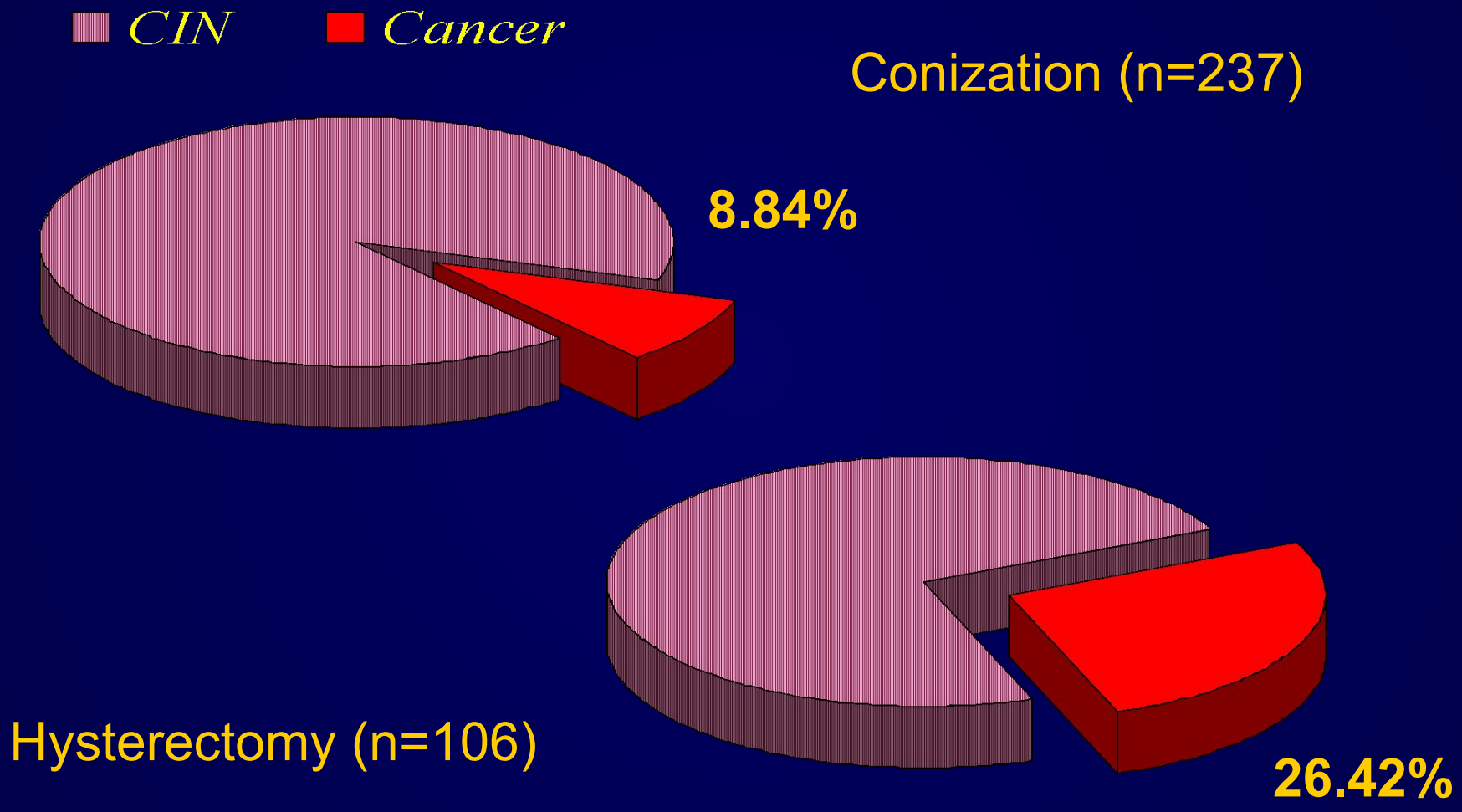


Unless there are other compelling reasons for performing a hysterectomy, this procedure is considered

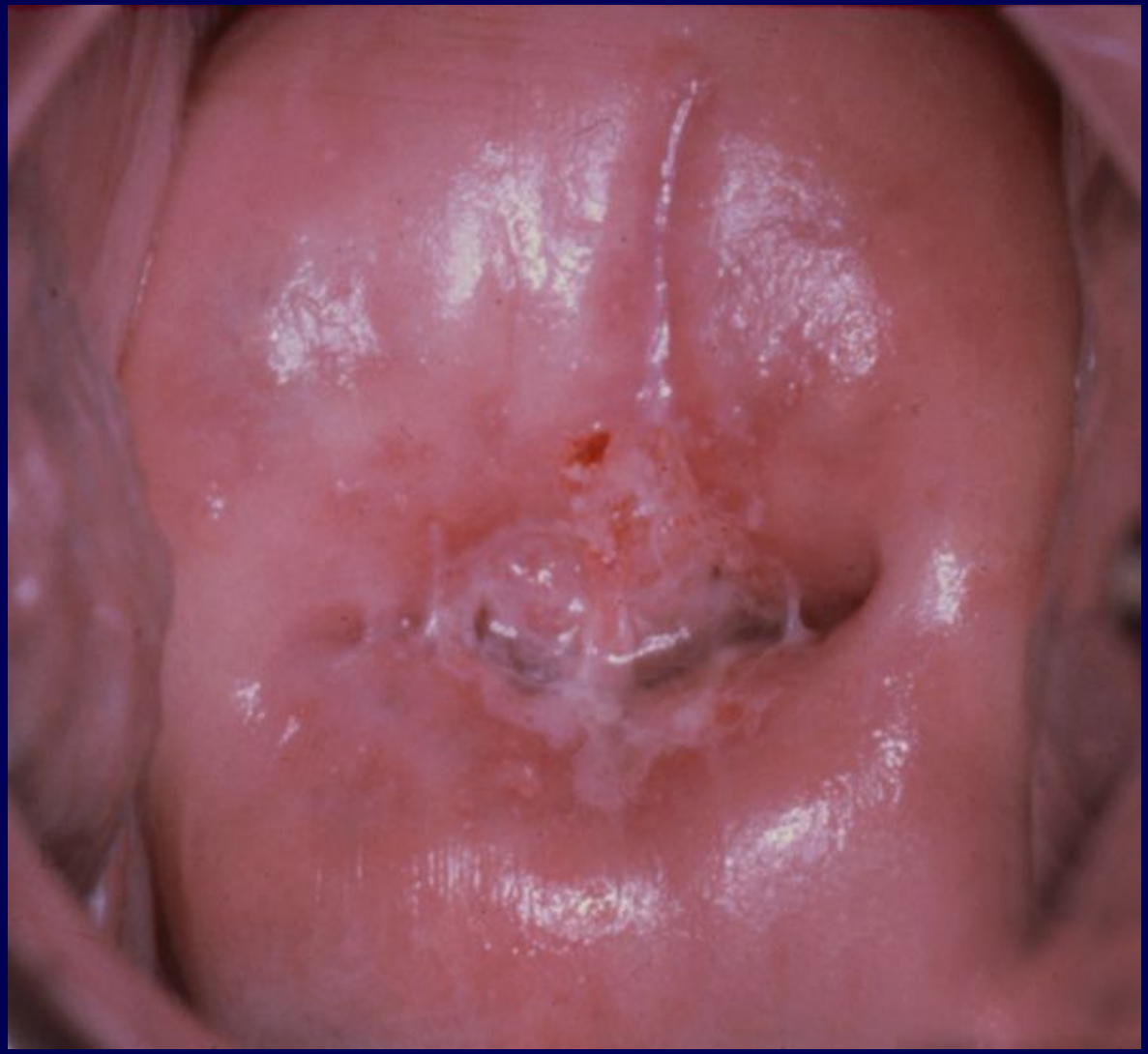
unacceptable

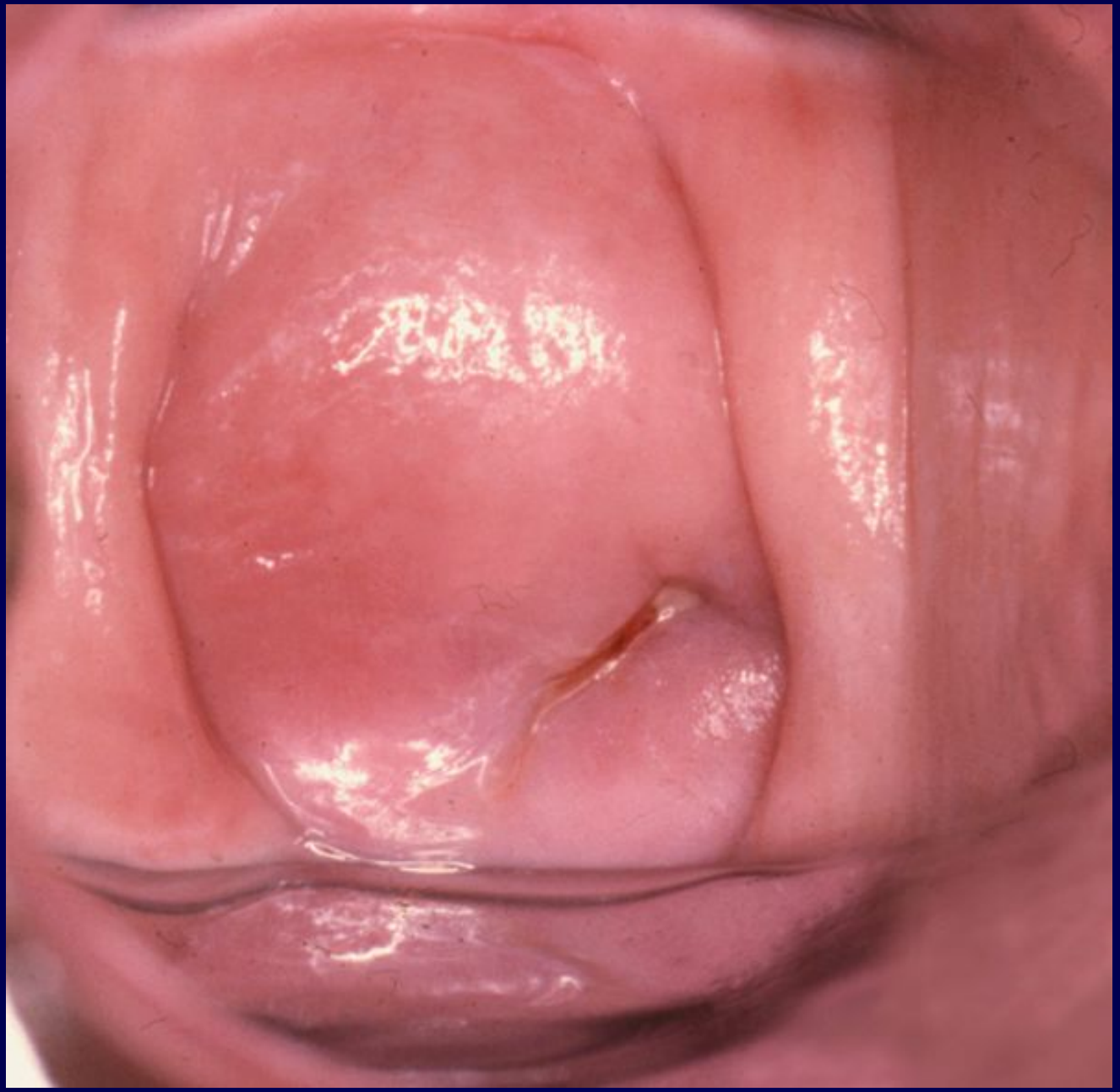
as primary therapy for CIN 2 and 3.

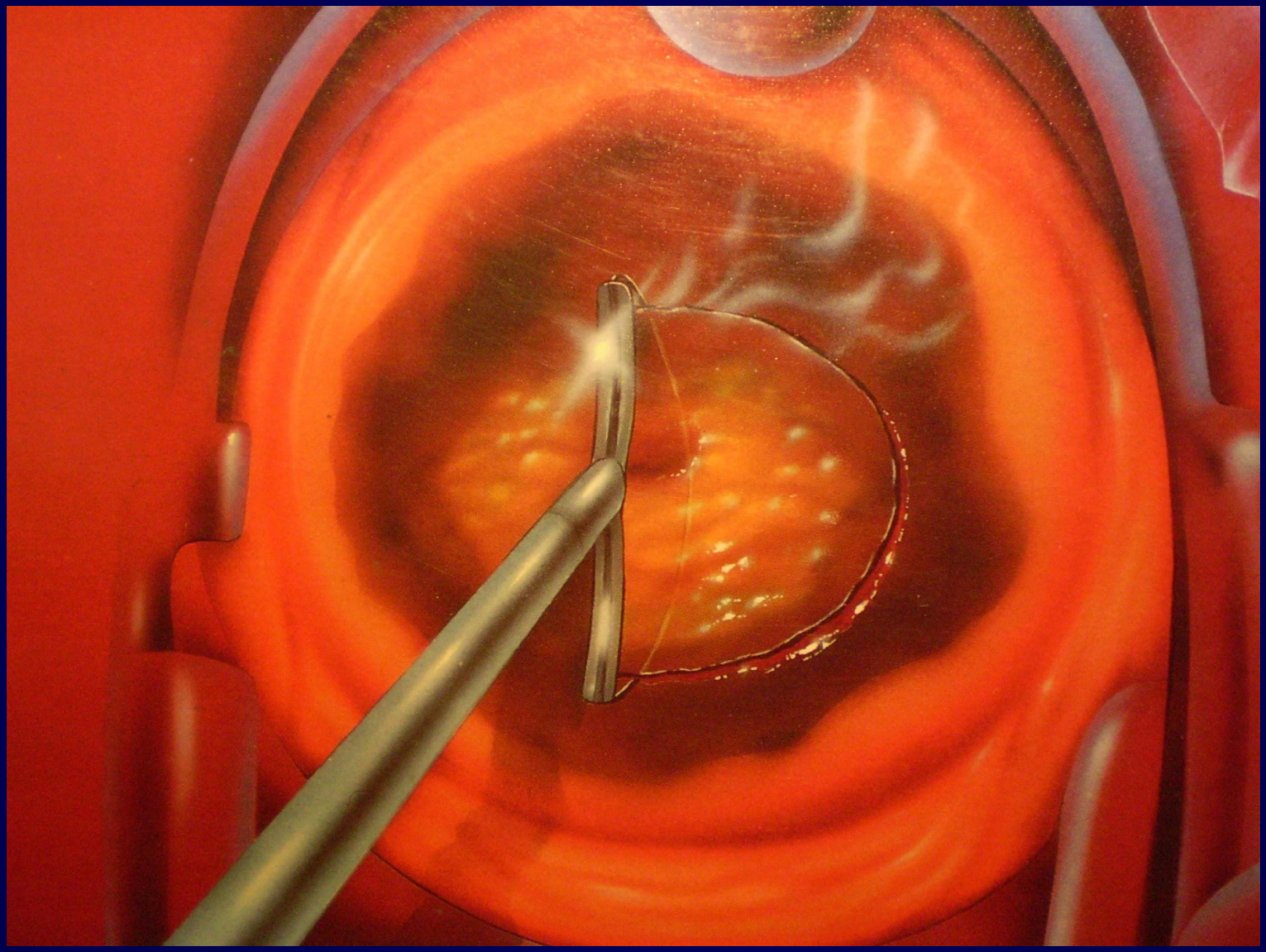
The finding of invasive cancer after treatment of CIN 3

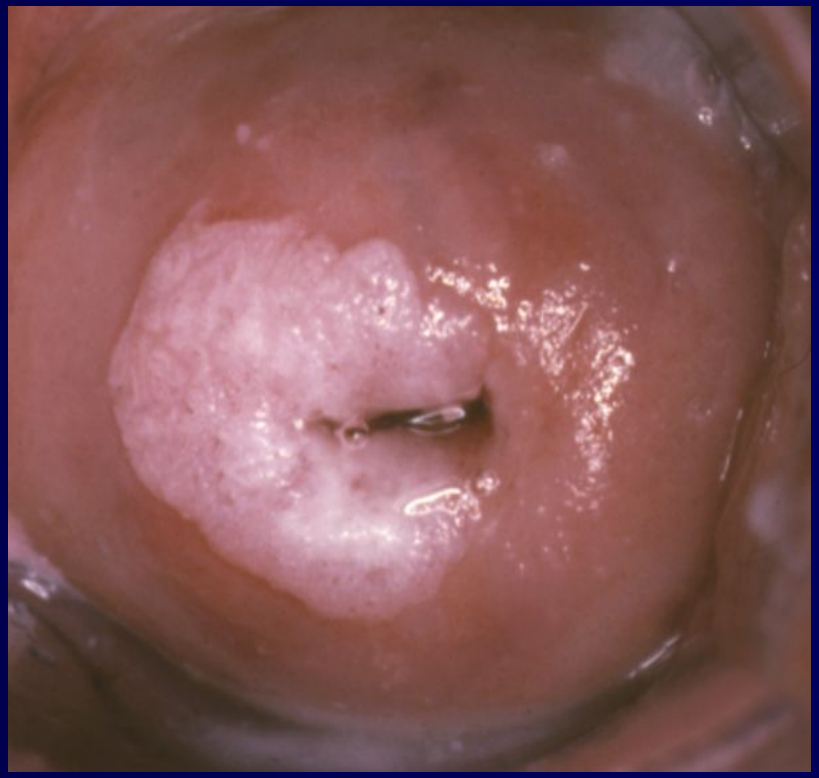


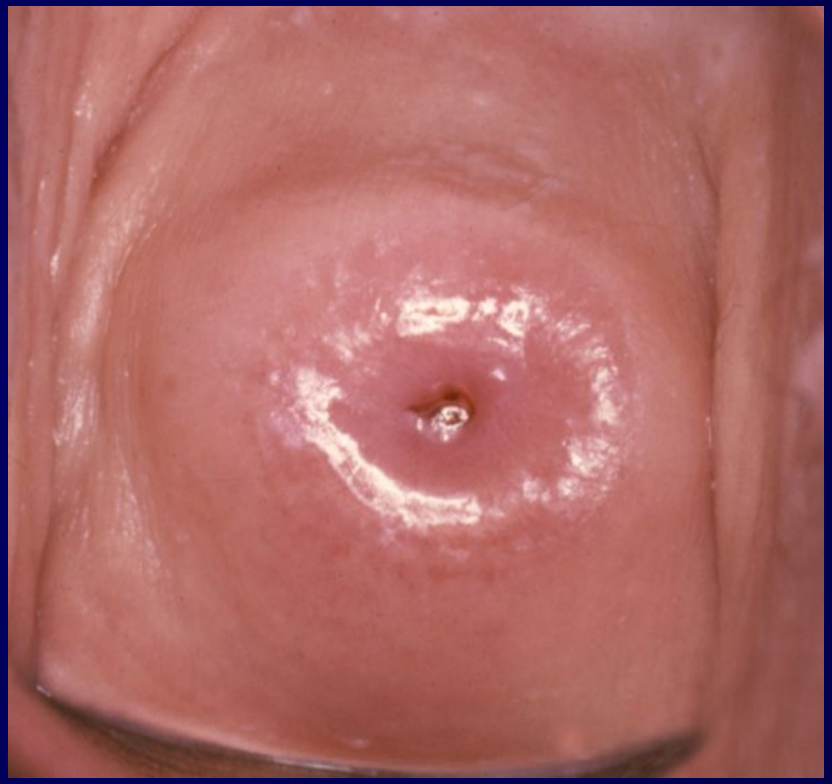
Kesic V, 2004.











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

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

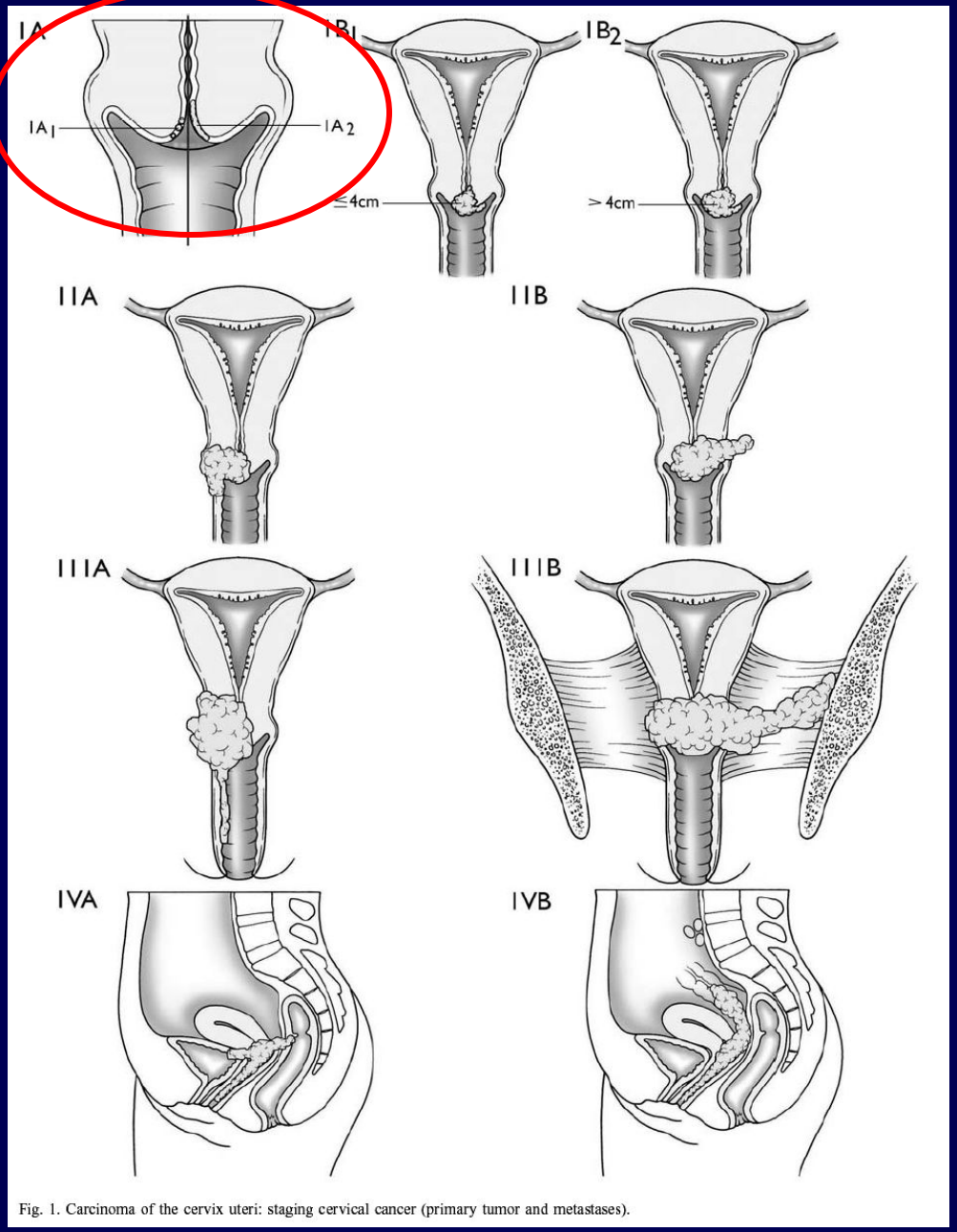
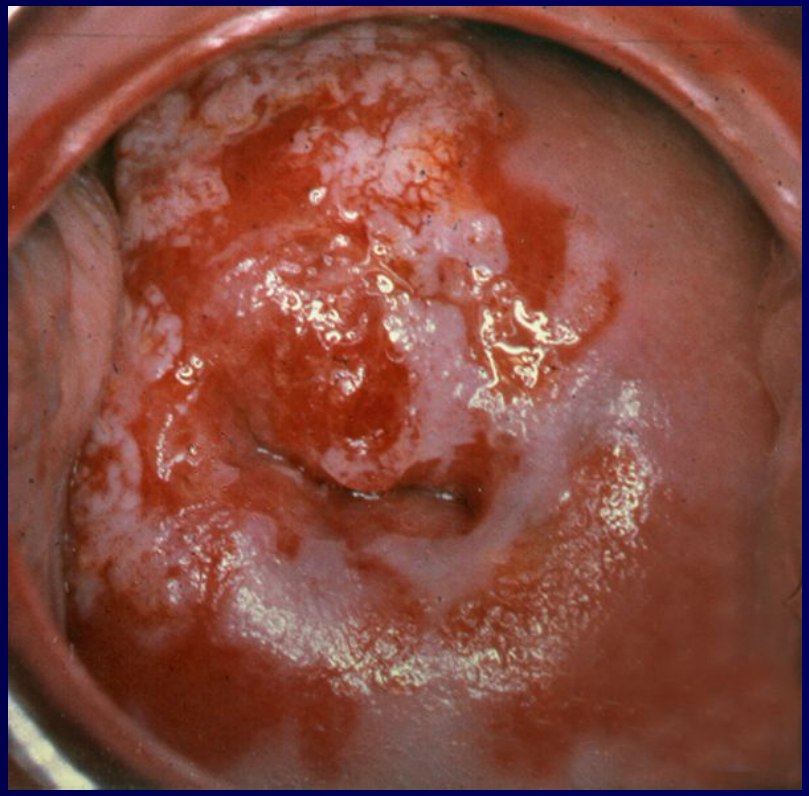
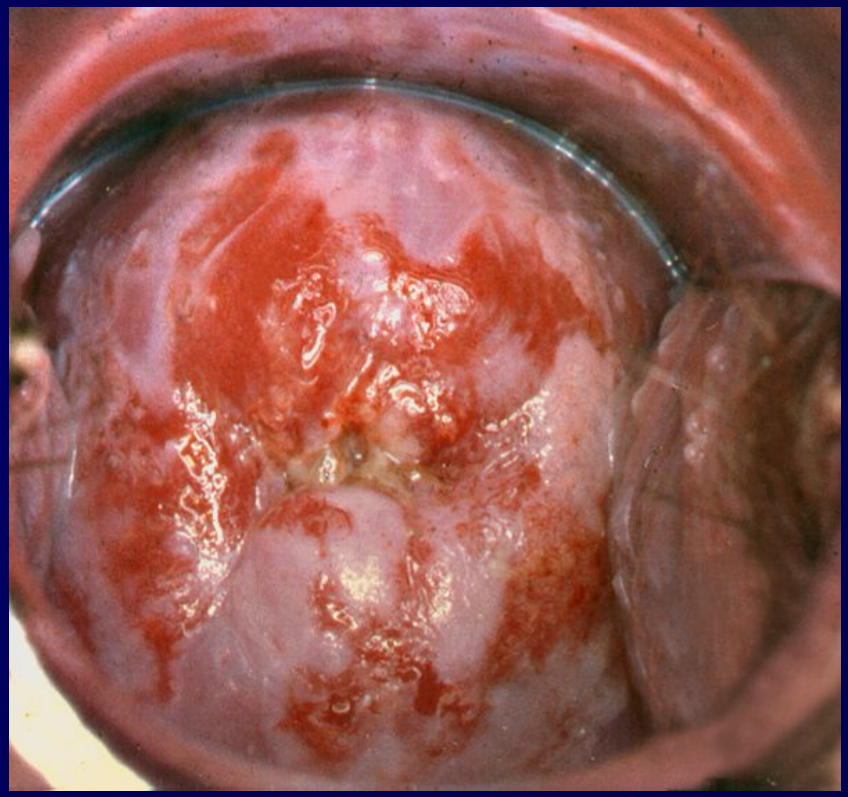


Fig. 1. Carcinoma of the cervix uteri: staging cervical cancer (primary tumor and metastases).

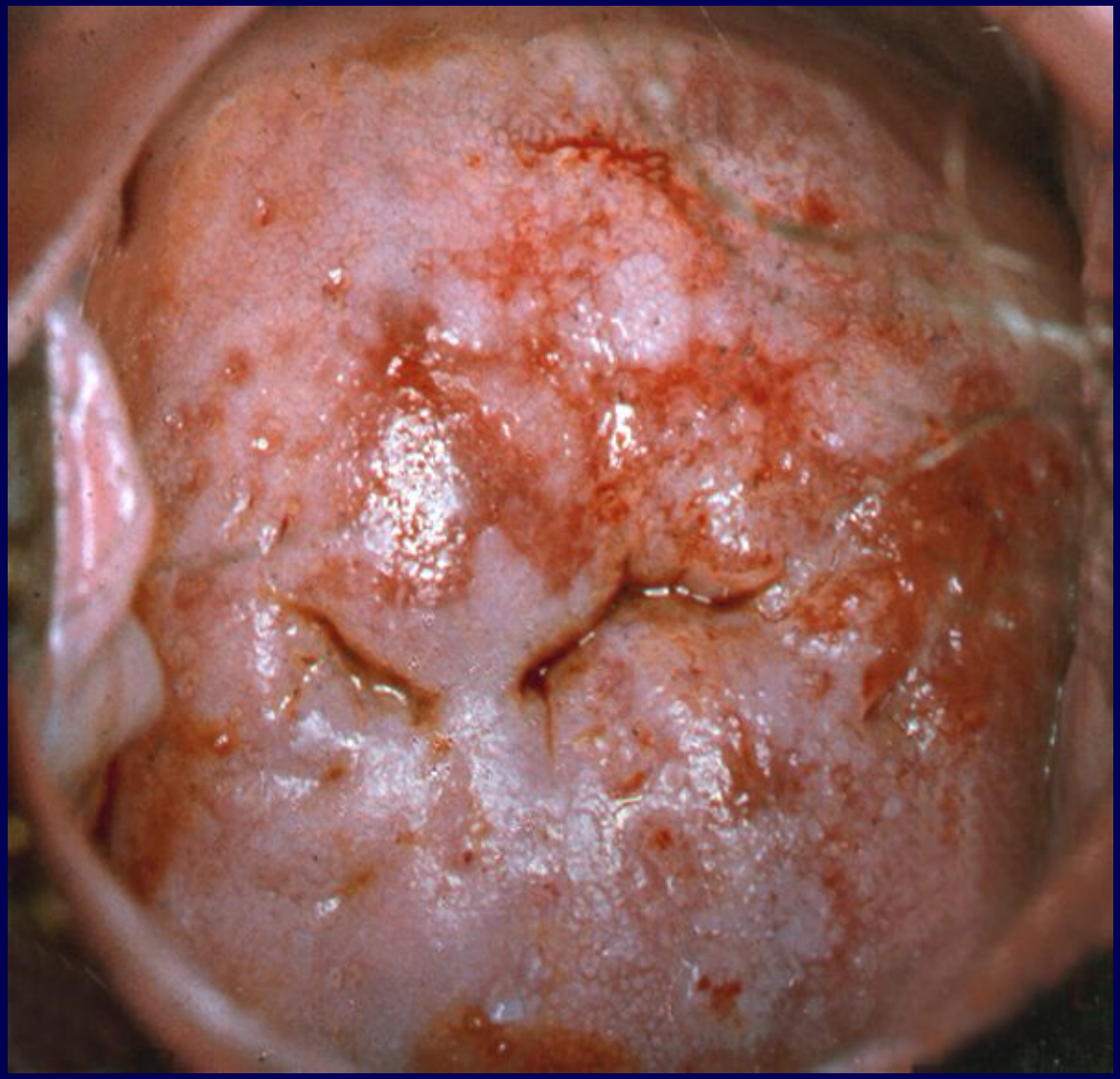
Montreal, 1994

Stage I a

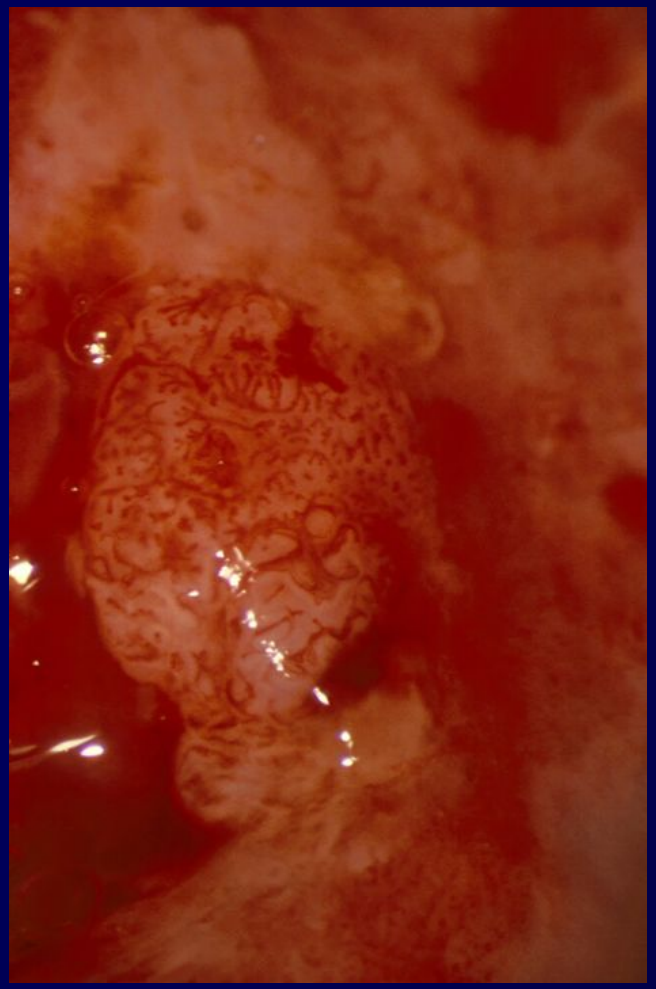




Microinvasive cervical cancer



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 cacinoma of the cervix uteri (FIGO staging 1994)

Stage I a: Invasive cancer identified only microscopically

Stage l 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?

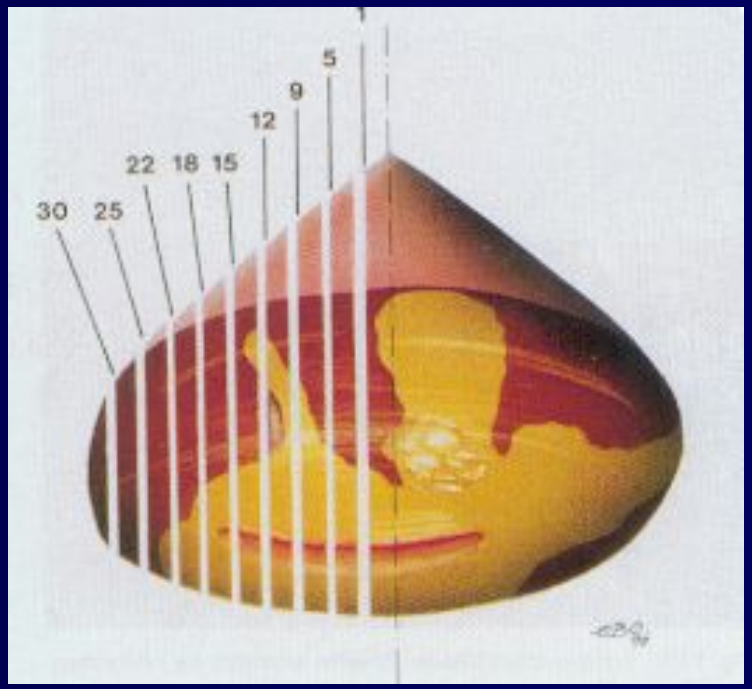
The excision margins should be free of CIN and invasive disease !

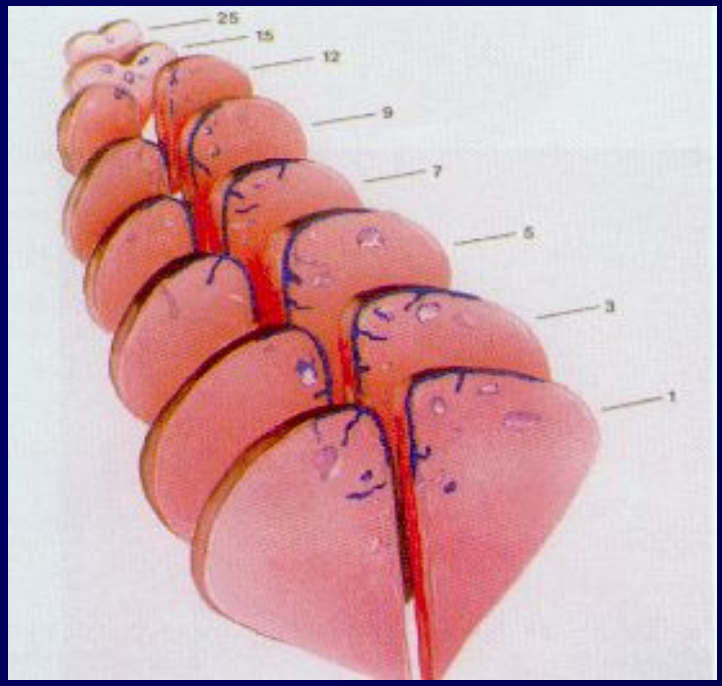
If the invasive lesion is excised
but CIN extends to the excision margin
then a repeat excision should be performed

- 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

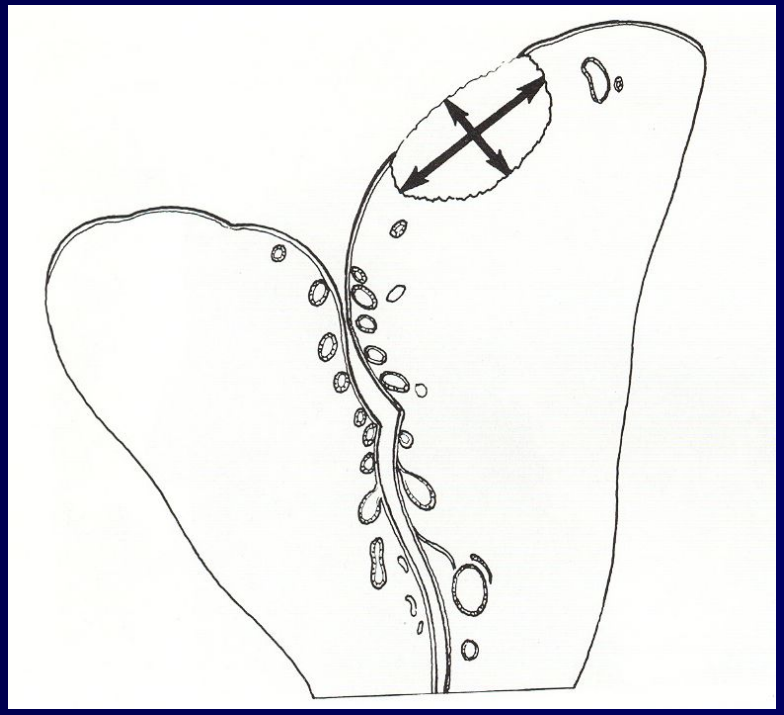
Histologic Processing of the Cone

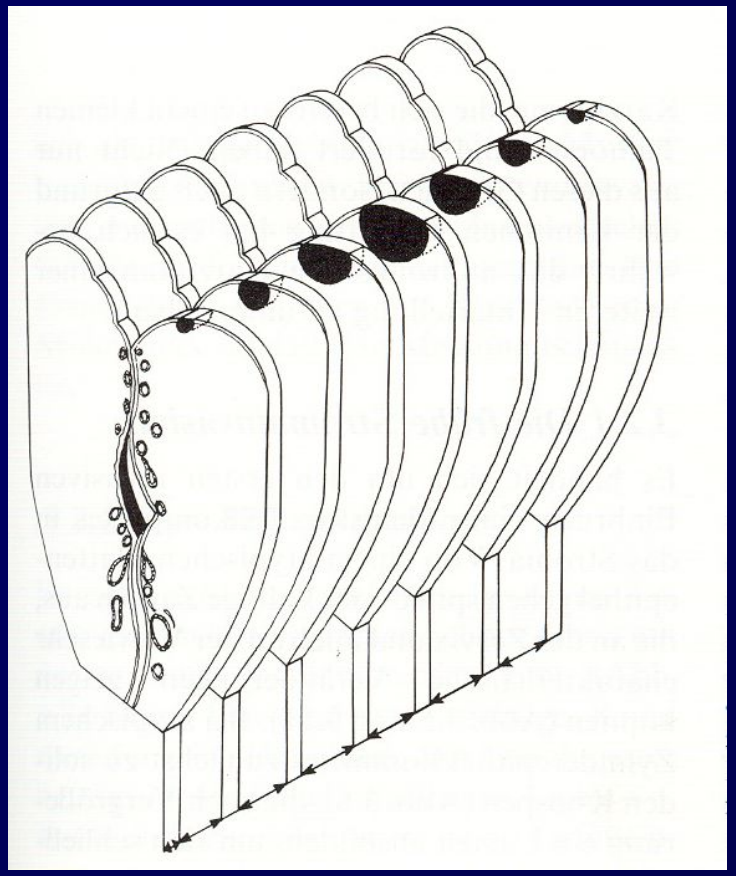




Serial sections à 400 µm intervals

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.

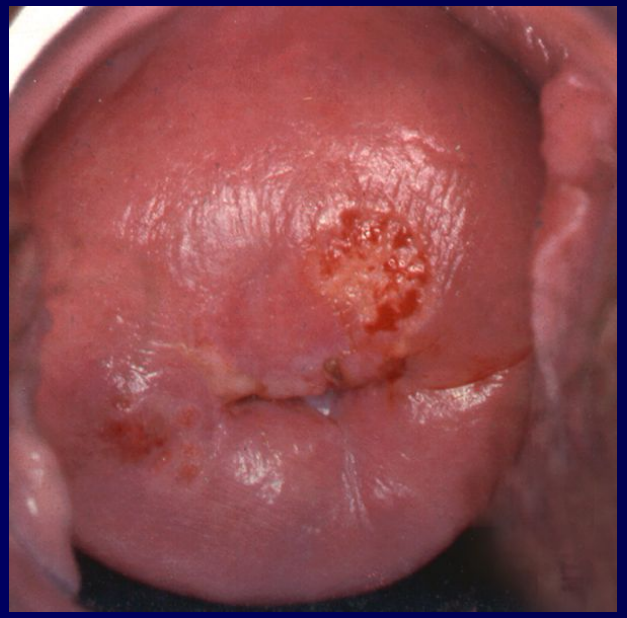
If it is likely that the cancer has spread,
than an extended operation
should be performed.

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

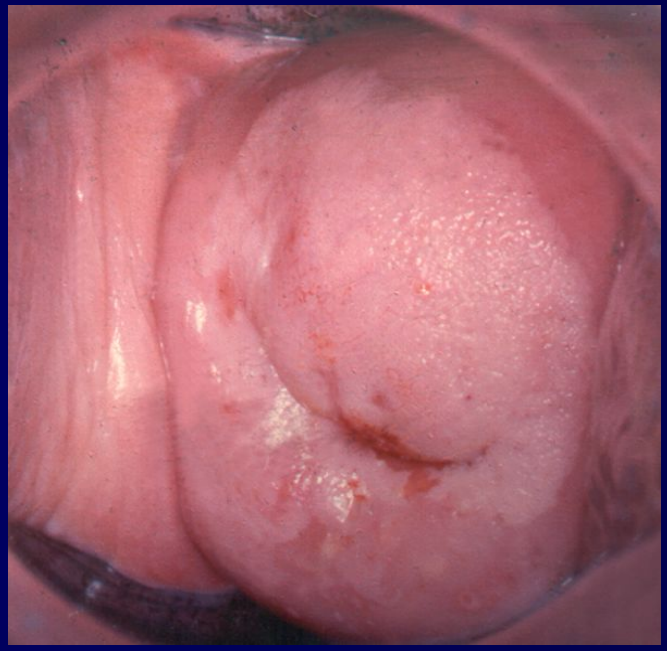
Stage I a 1
depth <3 mm
width <7 mm
no lympho-vascular invasion



- 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

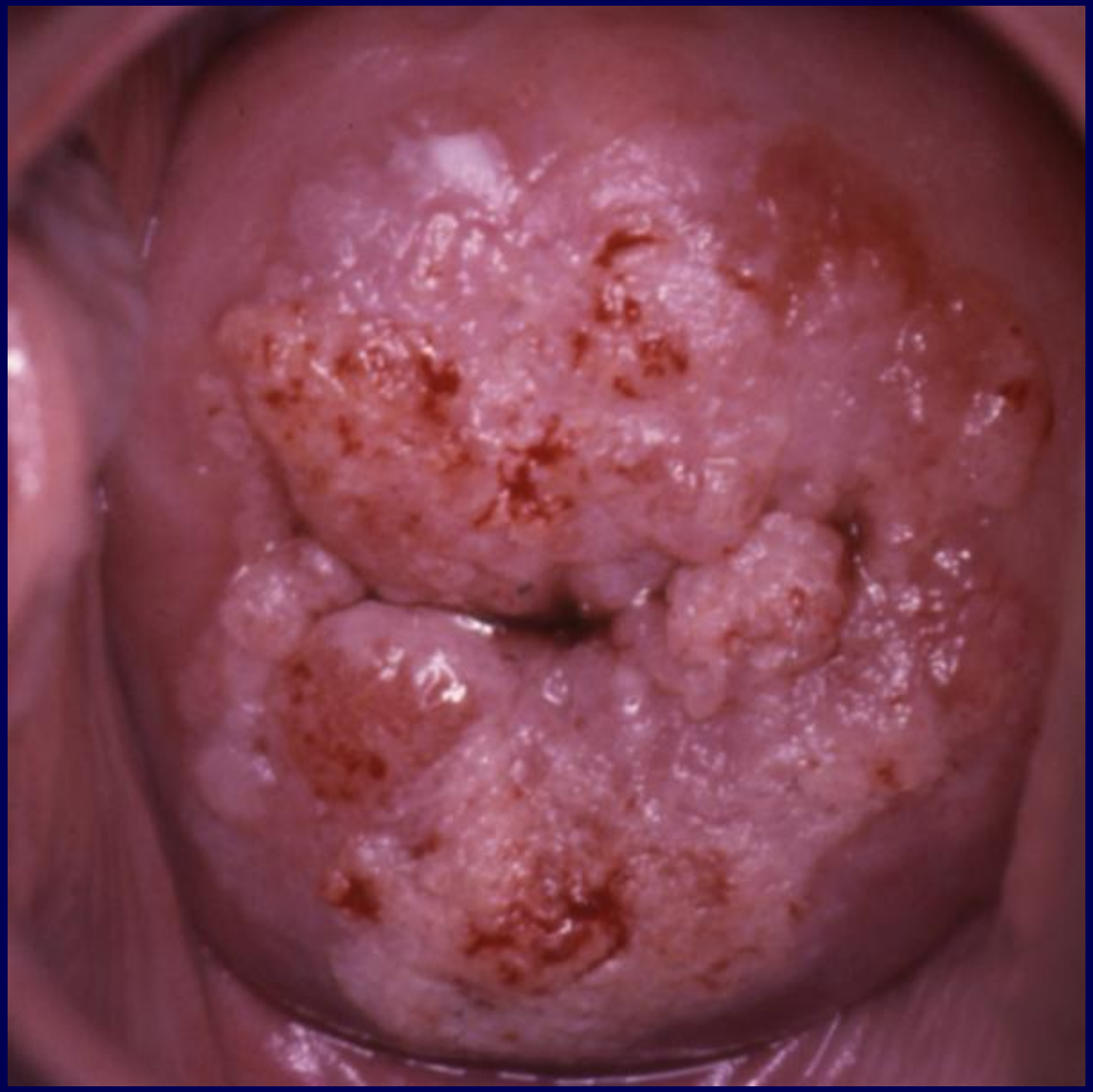
Smallest tumor with one pelvic lymph node metastasis

(no vascular invasion)

3 mm depth 17 mm width

F. Girardi et al.: Small FIGO Stage IB Cervical Cancer.

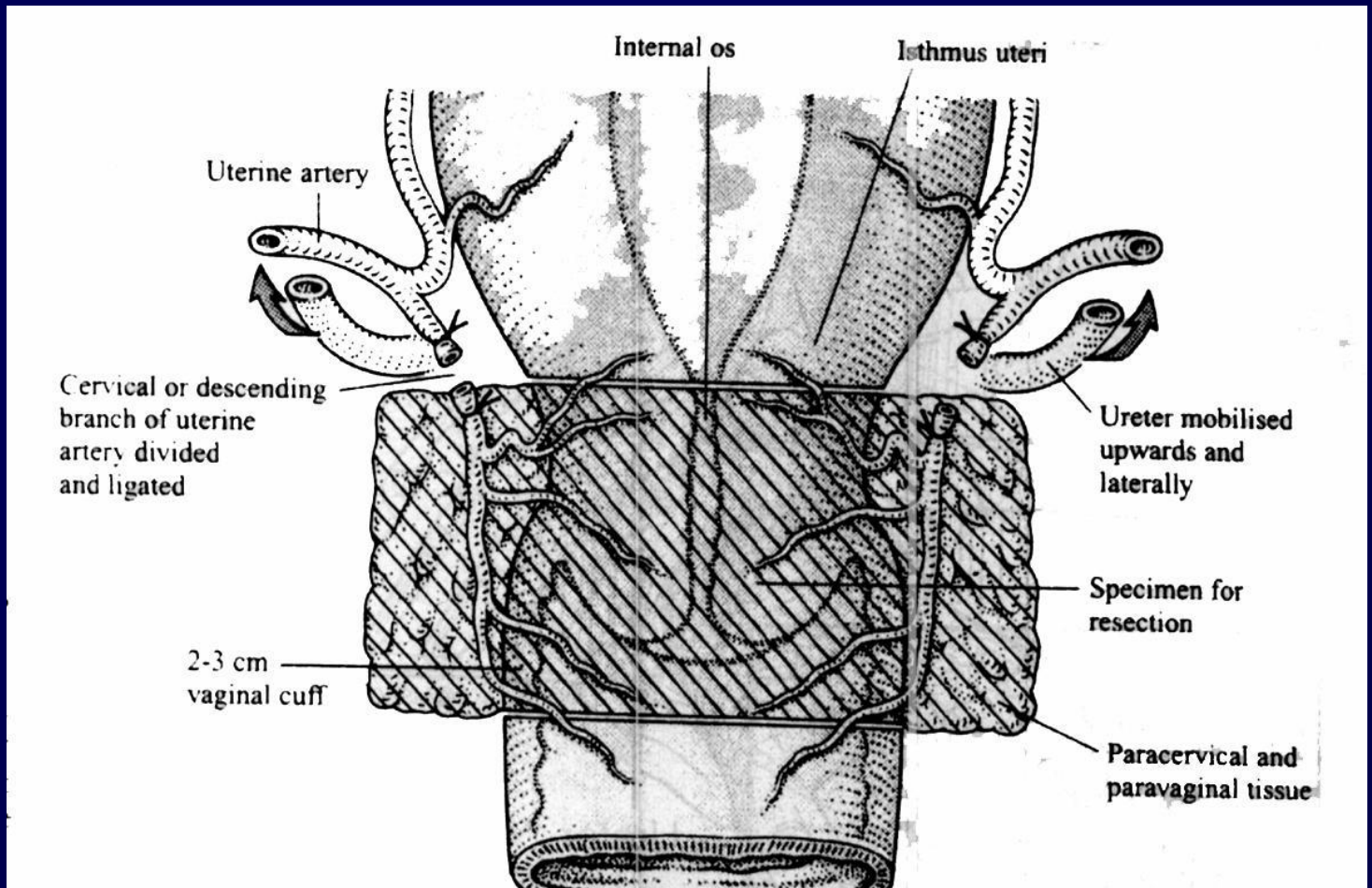
Gynecol Oncol 55, 427-432 (1994)



Treatment options for stage I a with lympho-vasular 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 (aproximately 4%)

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

Radical trachelectomy

Successful pregnancy in 26.5% cases

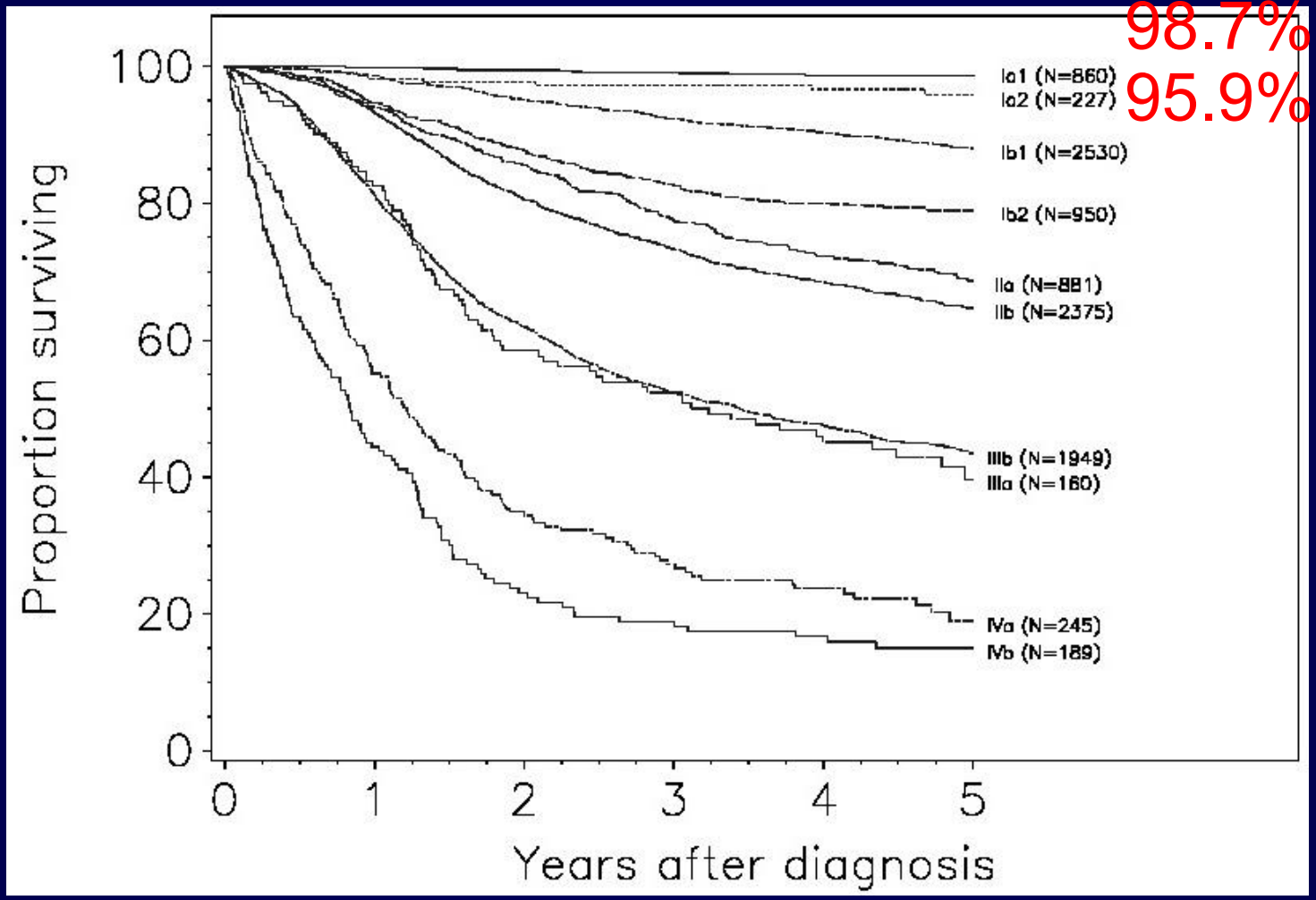
Plante et al. Gynecol Oncol. 2004 ;94:614-23

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