Management of CIN

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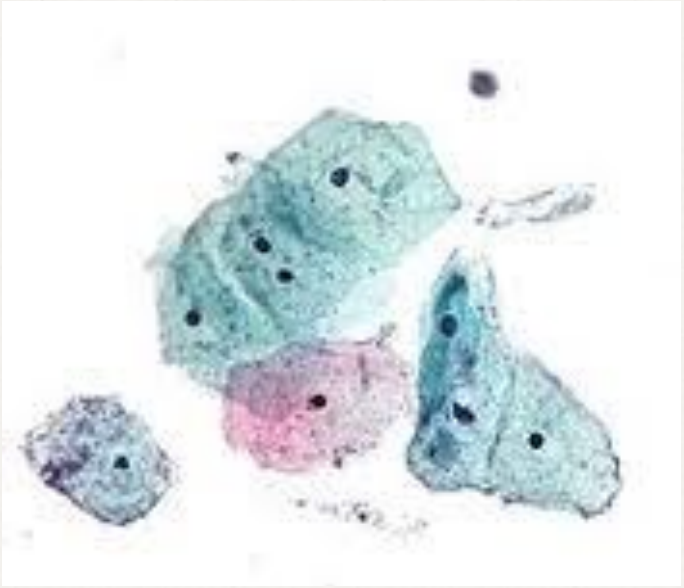
Since the introduction of

Colposcopy in 1924 by Hans Hinselmann

Cytology by George Papanicolau in 1946



Cervical cancer has become curable and detectable disease

This is mainly due to the fact that cervical cancer has:

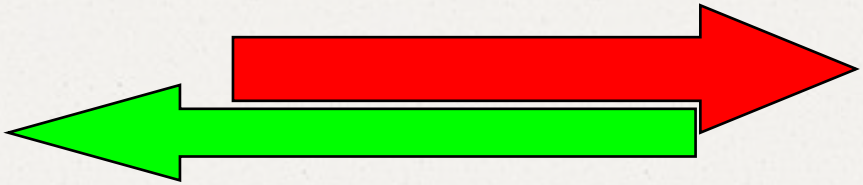
- Long asymptomatic pre-invasive period
- Effective screening methods
- Successful modalities for treatment of pre-invasive lesions

early detection and treatment of pre-invasive cervical lesions have lead to significant decrease of both the incidence and mortality of invasive cervical cancer

Classification

Progression

Regression



We have no dilemma of how to diagnose CIN

- Significant controversy, however, has arisen over several aspects of the management of cervical intraepithelial neoplasia

The main questions we need to answer are:

- Do all patients with CIN need therapy?

- What is most appropriate therapy for CIN?

- There is no dispute about the need to treat CIN 3, and few would argue that CIN 2 should be managed conservatively
- Today it's clear that in the spectrum of cervical pathology the line between premalignant and benign changes may be drawn between

CIN 1

CIN 2

CIN 3

- This two grades of CIN (CIN2 - 3) are referred to as High-grade Squamous Intra-epithelial Lesions to differentiate them from the Low-grade Lesions (CIN 1 and Hpv changes)

- This division now widely used in pathology originates from Bethesda system of cytological classification that was introduced in 1988 which contains SIL terms and is divided to:
- Low grade - Sil (L-SIL): Hpv changes/CIN1
- High grade - Sil (H-SIL): CIN 2 and 3

L-SIL

- While near consensus exists regarding the evaluation and management of patients with high grade lesions the appropriate management of patients with low grade abnormalities continues to be controversial
- high proportion of women affected
- low risk of progression
- significant regression may occur

- Most of low grade lesions reflects the expression of Hpv infection rather than true neoplasia

- Treatment is unnecessary in many patients with L-SIL because their lesion will regress spontaneously

Bansai N et al. Anticancer Res, 2008: 28:1763-6

Natural History of CIN

	Regress	Persist	Progress To CIN3	Progress to Invasion
CIN 1	57%	32%	11%	1%
CIN 2	43%	35%	22%	5%
CIN 3	32%	56%		>12%

Ostör. Int J Gynecol Pathol 1993; 12(2): 186-92

after 10 years of follow-up …

- 87.8% showing mild dysplasia became normal
- 2.8% progressed in cin3 and
- 0.4% progressed to invasive cancer

Holowaty P. et al. J. Natl Cancer Inst, 1999; 91: 252-258

Study enrolled more than 1000 of patients with CIN 1 has showed that at 12 months approximately

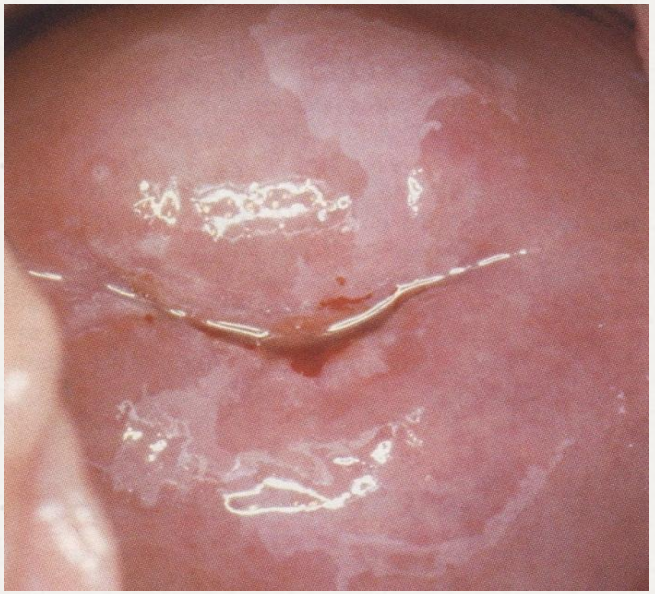
- 80% regressed to normal
- 16% has persistent low grade
- while 4% progressed to high grade lesions

Bansai N et al. Anticancer Res, 2008: 28:1763-6

Management of CIN1 (L-SIL)

- conservative (observation)
- active treatment

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



Expectant management of CIN1 is not totally without some risk

- 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 colposcopy is unsatisfactory or 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

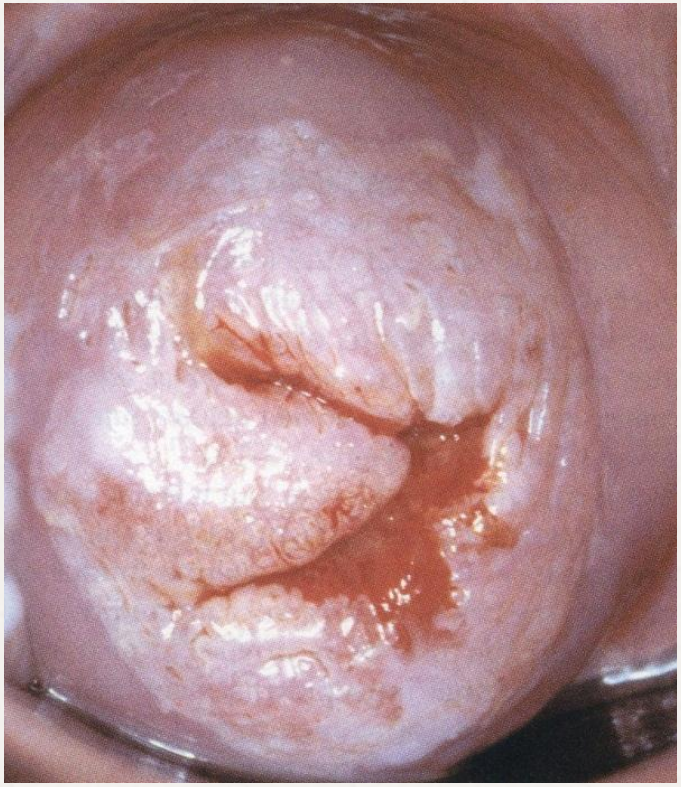
In general active management of women with CIN 1 is recommended in following cases:

- unsatisfactory colposcopy
- large, complex lesion
- persistent cin1 (>18 months)
- women older than 35
- noncompliance for follow-up

Management H-SIL

Women with biopsy confirmed H-SIL (CIN2 CIN3) have significant risk of disease progression to invasive cancer and

should be treated !!!



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Cumulative progression to cancer

After 2 years

- 0.3% for CIN2
- 1.6% for CIN3

After 10 years

- 1.2 % for CIN2
- 3.9% for CIN3

Holowaty P. et al. J. Natl Cancer Inst, 1999; 91: 252-258

The expectant management of CIN2 and 3 with repeat cytology and colposcopy is not acceptable except for:

- very young patients with CIN2
- pregnant patients

- Approximately 40 % of undiagnosed CIN2 will regress over 2 years.
- It should be kept in mind that CIN2 caused by Hpv 16 may be less likely to regress than CIN2 of other Hpv types
- In pregnancy CIN generally regress or remain stabile
- Only a minority may appear to have progression in postpartum examination, it is reported between 3 and 7%.

- For high grade lesions in pregnancy the risk of progression of CIN 2 and 3 in invasive disease is relatively small but they should be reexamined every 6-8 weeks with cytology and colposcopy
- For very big lesions in pregnancy large biopsy or even cone should not be delayed

What is an effective treatment for CIN?

There is no obviously superior conservative surgical technique for treating and eradicating cervical intra-epithelial neoplasia

Excision is preferred because of better histological assessment

Treatment methods

Excision

LLETZ/LEEP
Knife
Laser
Hysterectomy

Ablation

Radical diathermy
Laser
Cold coagulation
Cryocautery

Ablative techniques are only suitable when:

- the entire transformation zone is visualized
- there is no evidence of glandular abnormality
- there is no evidence of invasive disease
- there is no discrepancy between cytology and colposcopy
- no previous treatment

excision is necessary in:

- unsatisfactory examination
- large lesions
- non-correlating cytology and colposcopy
- recurrent disease

The histology report should record:

- the dimension of specimen
- the status of resection margins

with regard to intraepithelial or invasive disease

- for ectocervical lesions treatment techniques should remove tissue to a depth of at least 7 mm

What to do with involved resection margins ?

CIN extending to the resection margins
at LLETZ excision result in a
higher incidence of recurrence
but does not justify routine repeat excision
as soon as:

- the entire transformation zone is visualized
- there is no evidence of invasive disease
- there is no evidence of glandular abnormality
- the woman are under 50 years of age

Recurrence rate in relation to the margin status

- clear margins – 2.9 – 12%
- involved margins 22-28.9%

NEED FOR FOLLOW-UP !!!!!

Unless there are other compelling reasons for performing a hysterectomy

This procedure is considered

UNEXPTABLE

As a primary treatment for CIN 2 and 3

The primary goal in management of pre-invasive cervical lesions is to ensure that ***invasive disease*** is not missed !!!


Thank
You!