

INTERNATIONAL WORKSHOP ON
HUMAN PAPILLOMAVIRUSES AND CONSENSUS
RECOMMENDATIONS FOR CERVICAL CANCER PREVENTION

&

COLPOSCOPY TRAINING

April 21. 2007. Hotel Croatia, Cavtat, Croatia

Colposcopic examination

Goran Grubisic



Aim

To describe the key features of
the colposcopic examination

- Specula insertion
- Uterine cervix and vaginal almost upper third visualisation
- Speculoscopy
- Proceed to colposcopic examination

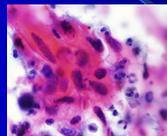
Objectives

- Describe/explain the design of the colposcope
- mobile, stereoscopic, binocular equipment
- 10 x magnification



Who undergo to colposcopic examination?

- **Patients with cytologic abnormalities**
- **Patients with macroscopically suspected erythroplakia**
- **but also**
- Patients with inflammatory changes of the uterine cervix and lower genital tract
- Patients with hormonal deficiency changes of the uterine cervix and lower genital tract
- Sexual abuse victims



- Detail the basic requirements necessary for a colposcopy (focusing more on what is needed to enable good visualisation rather than emphasis on practical considerations such as information, counselling, communication etc)

The basic requirements necessary for a colposcopy

- What is needed to enable good visualisation?
- Excellent light
- Excellent optics
- Appropriate speculas and
- 3%-5% sol. acidi acetici
- Lugol's 2% iodine solution
- Kogan's endocervical speculum



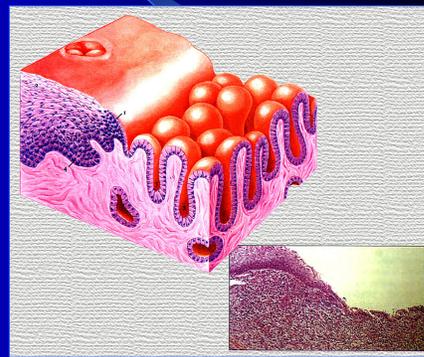
Explain the key questions that must be addressed in any colposcopic examination

- accessibility of the uterine cervix
- accessibility of the upper third of vaginal vaults
- SCJ (Squamo Columnar Junction) visibility: entirely, partially, not visible,
- satisfactory or unsatisfactory SCJ visibility
- appropriate speculoscopic preparation
- appropriate lighting



Illustrate the SCJ and explain its significance

- ...pluri-stratified squamous epithelium meets monolayered cylindrical epithelium
- ...underlying process: squamous metaplasia from monolayered pluripotent basal cells, from which due to chronic irritation emerge new squamous or cylindrical immature cells very sensible to extraneous stimuli, i.e. inflammatory irritation as HPV infection



Evers J.L.H., Heineman M.J. Gynecology - A clinical atlas, first edition, Utrecht 1990

- ...pluristratified squamous epithelium meets monolayered cylindrical epithelium
- ...underlying process: squamous metaplasia from monolayered pluripotent basal cells, from which due to chronic irritation emerge new squamous or cylindrical immature cells very sensible to extraneous stimuli, outer world noxa, i.e. inflammatory irritation as HPV infection



- Kogan's endocervical speculum enables better visualisation of endocervical part, as well as posthysterectomic vaginal funnel



Explain how and why acetic acid is used



- **HOW?**
- On the cotton stick emerged in 3%- 5% acetic acid solution, plaster all over cervical surface
- **WHY?**
- Disrupted cell chromatin due to HPV infection cells process-damages, cells accept acetic acid solution demonstrating acetowhitening, whose intensity depends on the intensity of HPV infection, ie: faster appearance and slower disappearance means higher grade of lesion, slower appearance and faster disappearance mean lower grade of lesion

Explain how, why and when Schiller's iodine is used



- **HOW?**
- Cotton stick in 2% Lugol's solution
- **WHY?**
- Disturbed pluristratified squamous epithelium in cases of neoplastic changes has disrupted glycogen production, and these areas do not accept iodine solution, so that iodine negative areas are suspected to contain neoplastic change, but we face iodine negative areas also in cases of inflammation, as well as in women with hormonal deficiency
- **WHEN Schiller's iodine is used ?**
- In every patient in whom after application of 3%- 5% sol. acidi acetici we face with various signs of acetowhitening under normal light, as well as facing with vascular disturbances(i e punctuation, mosaicism, abnormal vascular changes)

Describe the different types of biopsy (CDB, excisional, extended)

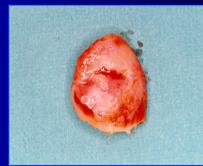
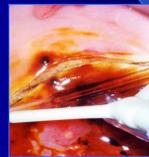


- Punch biopsy and endocervical curettage
- Diathermy loop biopsy and endocervical curettage
- Cold knife excisional biopsy
- LLETZ procedure
- Cold knife conisation
- Cold knife amputation

- Punch biopsy and endocervical curettage (equipment)
- Tissue specimen for pathohystological analysis



- Diathermy loop biopsy



- Loop equipment with various dimensions of loops
- It is possible to choose adequate loop due to dimension of cervical shape
- Ball electrode for coagulation



- Due to diagnostic therapeutic protocol it is not advisable to omit conisation- cone biopsy (either loop either cold knife)in selected cases
- because we can face with more serious diagnosis on the removed uterus

CROATIAN GUIDELINES FOR PREMALIGNANT UTERINE CERVIX CHANGES MANAGEMENT

- *(Ljubojević N, Babić S, Audy- Jurković S, Ovanin- Rakić A, Jukić S, Babić D, Grubišić G, Radaković G, Ljubojević- Grgec D
Improved National Croatian Diagnostic and Therapeutic Guidelines for Premalignant Lesions of the Uterine Cervix
with Some Cost- Benefit Aspects Coll. Antropol. 25
(2001) 2: 467- 474)*

Conclusive remarks

- *Aim*
- To describe the key features of the colposcopic examination
-
- *Objectives*
- Describe/explain the design of the colposcope
- Detail the basic requirements necessary for a colposcopy (focusing more on what is needed to enable good visualisation rather than emphasis on practical considerations such as information, counselling, communication etc)
- Explain the key questions that must be addressed in any colposcopic examination
- Illustrate the SCJ and explain its significance
- Explain how and why acetic acid is used
- Explain how, why and when Schiller's iodine is used
- Describe the different types of biopsy (CDB, excisional, extended)



• **Thanks for
Your attention**