

## Colposcopic Evaluation of Neoplastic and Preneoplastic Lesions of the Cervix – a Retrospective Study

A. COMANESCU<sup>(1)</sup>, D. ILIESCU<sup>(1)</sup>, MARIA COMANESCU<sup>(2)</sup>, N. CERNEA<sup>(1)</sup>, L. MOGOANTA<sup>(3)</sup>, CRISTIANA SIMIONESCU<sup>(3)</sup>

<sup>(1)</sup>Department of Obstetrics and-Gynecology, University of Medicine and Pharmacy, Craiova; <sup>(2)</sup>Department of Pathology, Emergency University Hospital, Craiova, <sup>(3)</sup> Department of Pathology, University of Medicine and Pharmacy, Craiova

**ABSTRACT** Based on observation sheets and the existing database in Obstetrics – Gynecology Department, we reviewed the outcome for patients diagnosed with neoplastic and preneoplastic lesions of the cervix that were examined in our clinic. Colposcopic diagnosis efficiency was analyzed retrospectively reported to the histopathologic diagnosis and to the results of other studies. Our results were similar to those presented in international literature, showing a careful evaluation of cervical lesions in our colposcopy department.

**KEY WORDS** keywords

### Introduction

Based on observation sheets and the existing database in Obstetrics – Gynecology Department, we reviewed the outcome for patients diagnosed with neoplastic and preneoplastic lesions of the cervix that were examined in our clinic. Colposcopic diagnosis efficiency was analyzed retrospectively reported to the histopathologic diagnosis and to the results of other studies.

Colposcopic examination was done in all cases respecting the three stages of examination universally accepted.

A. Application of saline on the vagina and cervix

B. Application of 3-5% acetic acid - cylindrical epithelium and papillae show squamo-cylinder junction. Acetic acid coagulates reversible nuclear protein abundant in pathological epithelium that becomes acetowhite.

C. Lohm – Schiller's test (Lugol solution) - Solution Lugol stains normal epithelium rich in glycogen in mahogany brown. This test highlights areas iodine-negative showing a loss of iodine uptake on exocervix or vaginal mucosa. The test is relevant only in conjunction with the acetic acid test.

### Results

153 cases were studied. They were divided into three groups according to histological results. Nine cases were excluded from the study because of unsatisfactory colposcopy.

Group 1 - LSIL (CIN I / condiloma) Bethesda System combines grade intraepithelial neoplasia due to human papilloma virus infection in a

descriptive category called LSIL (low grade intraepithelial neoplasia).

**Table 1. Groups of patients with available colposcopy results divided according to histopathological diagnosis**

LSIL	104
HSIL	36
CI	4

Unlike high grade lesions, lesions due to low grade can be caused by any strain of HPV. Factors associated with development of LSIL are younger age, presence of high risk HPV strains and persistent HPV infection. Classification of lesions resulting from HPV infection in the same category with CIN I is based on the rate of progression to CIN III - 14% for this koilocytes and 16% for CIN I. Elements suggestive of LSIL are present acetowhite epithelium which is slow in appearing, persistent and slowly disappears, is white and has shiny irregular outline (geographically), sometimes accompanied by satellite lesions. Vasculature has fine vessels, uniform, separated and arranged in vertical or horizontal network. LS is weak positive test.

Colposcopic expression of LSIL is less typical than in HSIL in our study of 104 confirmed cases of CIN 1 were presented: • Aceto-white epithelium, 54 cases • punctation 25 cases • Mosaic 20 cases • 3 cases of atypical vessels

We compared the results obtained in our study with results obtained by Hellberg and Nilson in a study of 165 confirmed cases of CIN 1:

**Tabel 2 Colposcopic expression of LSIL**

	Hellberg și Nilson	SCJU Craiova
Aceto-white epithelium	52%	51,9%
punctation	22%	24%
mosaic	18,2%	19,2%
atypical vessels	2,4%	2,8%



**Fig1 LSIL - Aceto-white epithelium**

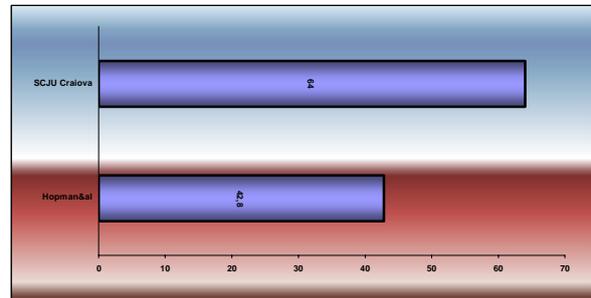


**Fig2 fine. LSIL - iodine negative**



**Fig3. Warts - resection with loop diathermy**

Regarding the correlation with histopathologic results, results of randomized trials were superior to international literature (Hopman et al 1993). The difference is due to higher percentage of warts in our study compared with control groups.



**Fig 4 Correlation with histopathologic results**

**Group 2 - HSIL (CIN II and III)**

Suggestive aspects HSIL cases were included in group Aceto-white epithelium is increasing rapidly and disappears slowly, with net limits and dirty white color. Vessels had an irregular design with intercapillary distance. The Lahm – Schiller test was negative surface yellowish, persistent, with diffuse edges.



**Figure 5. HSIL - Aceto- white epithelium with net margins (HP - CIN 2)**



**Figure 6. HSIL - mosaic and punctation area (HP- CIN 2)**

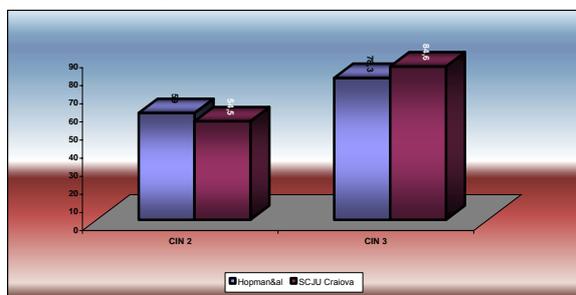
We followed the correlation between colposcopic changes and histological grade of

lesion specific. The most significant association was present acetowhite epithelium thick with color variations (international border). Other changes seen were mosaic rough, rough punches, mosaic.



**Figure 7 Acetowhite epithelium with thick white color variations (internal margin) (HP - CIN 3)**

Of 36 cases with CIN II / III lesions 28 cases were classified in the category of high grade colposcopic, six cases were classified in the category LSIL (5 cases were type lesions CIN II) and two of the cases were suspected invasive carcinoma. We evaluated the rate of colposcopy correlation with histopathologic outcome compared to different grades of CIN with the results of Hopman - 1993.



**Figure 8. Colposcopy correlation with histopathologic outcome in CIN 2 / CIN 3**

### Group 3 - Invasive cancer

Invasive carcinoma of the cervix is the result of progressive development in a long time of

precursor lesions that begins at the junction scuamo - cylindrical. Invasive cervical carcinoma was diagnosed on colposcopic preclinical stage, in which genital symptoms and clinical examination are unable to suggest the diagnosis. The gynecological exam is sufficient in clinical stage, colposcopy is unnecessary, biopsy being carried out directly.

We registered four cases in which the diagnosis was made by colposcopy. The small percentage of colposcopic assessment is due to the large number of patients who present with vegetant or ulcerative invasive forms. All four cases had features suggestive of invasion (fragile tissue, ulcerated areas, atypical vessels, spotting at touch, monstrous ectopy).

Our results were similar to those presented in international literature, showing a carefull evaluation of cervical lesions in our colposcopy department.

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