

Symptomatology of Cervical Intraepithelial Neoplasia

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Abstract: *Cervical cancer ranks second among gynecological malignancies in terms of both frequency and mortality. This study investigates clinical symptoms associated with cervical intraepithelial dysplasia among women treated at the Clinic for Gynecology and Obstetrics of KCUS. Two patient groups (reproductive and perimenopausal/menopausal) underwent HPV genotyping and conization. Results showed variations in symptoms like intermenstrual and postcoital bleeding, abnormal cervix appearance, condylomas, vaginal secretions, and pelvic pain. Findings emphasize the importance of early detection and regular screenings to reduce the progression of cervical cancer and associated fatalities.*

Keywords: cervical intraepithelial neoplasia, cervical cancer, HPV genotyping, gynecological screening, cervical dysplasia

1. Introduction

Cervical cancer is one of the most common malignant tumors worldwide and accounts for 10% of all malignant tumors in women. It arises through its prestages of cervical intraepithelial neoplasia (CIN). Women between the ages of 30 and 45 are most often affected, although 35% of affected women are under 40 years of age. Women older than 65 make up 10% of patients, and this age group most often dies from the disease, which is related to the advanced stage of the disease at the time of diagnosis. (1, 2)

More than 80% of patients are women from underdeveloped countries. Cervical cancer is the tenth most common cause of death among malignancies in the world, and the second most common cancer by incidence among women in Bosnia and Herzegovina, after breast cancer. In most developed countries, the incidence of cervical cancer is decreasing due to regular screening and better treatment. All authors agree on one thing, which is that invasive cervical cancer is one of the malignancies with the best conditions for prevention, that it is necessary to carry out a screening program for this disease and that, theoretically, it could be completely eradicated, but on the condition that each a sexually active woman goes through a screening program, regardless of its type. (3)

Among gynecological malignancies, cervical cancer ranks second, both in terms of frequency of occurrence and mortality. Five-year survival for patients with early clinical stage varies from 50% to 90% according to different prognostic factors. For patients with locally advanced disease (stage IIb to IVa), survival is significantly lower. Local recurrence of the disease is a significant cause of mortality. Recurrence is more common in women with advanced disease and in tumors with high risk factors. Recurrence usually occurs within three years of diagnosis. (4)

Early diagnosis of cervical cancer can be extremely demanding due to several factors, and above all due to the often asymptomatic nature of the early stage of the disease, the origin of some tumors from inside the endocervical canal or under the epithelium of the ectocervix, making

visualization during speculum examination impossible and significant false-negative rates in Pap smears. even in women who have regular screenings. (5)

The aim of this research is to examine the presence of clinical symptoms in patients with cervical intraepithelial dysplasia.

2. Research Material and Methods

The conducted research is prospective, descriptive-analytical, comparative, partly epidemiological, and mostly clinically applied in nature. The entire research was conducted on female patients of the Clinic for Gynecology and Obstetrics of KCUS.

In the experimental part of the research, the test subjects were divided into two groups of fifty as follows:

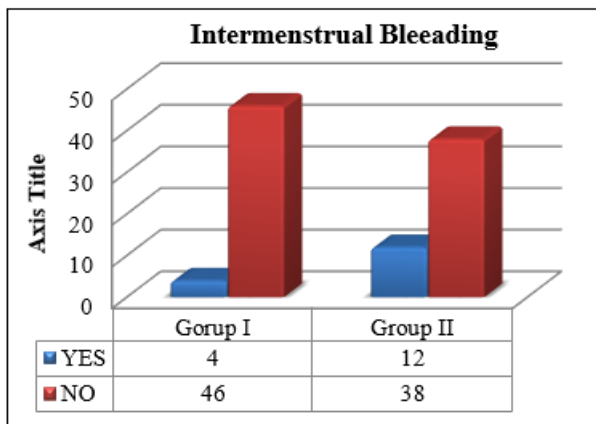
- Group I** (n = 50): female patients of reproductive age who were HPV genotyped, conized.
- Group II** (n = 50): perimenopausal and menopausal patients who were HPV genotyped, conized.

As part of the complete diagnostic processing, detection and verification of cervical dysplasia, four complementary methods play a role:

- Pap test.
- Colposcopy with targeted biopsy.
- Pathohistological analysis of the sample.
- HPV genotyping of the virus, the results of which make it possible to separate biological from morphological changes in the epithelium.

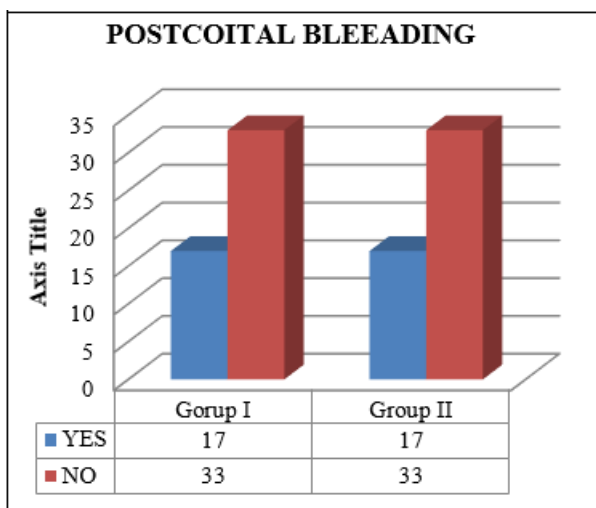
Research results

The largest number of respondents were born in the 1980s (n=9). The oldest respondent was 65 years old, while the youngest was 23 years old.



Graph 1. Intermenstrual bleeding

Out of a total of 100 subjects in both examined groups, only 16% had intermenstrual bleeding. In group I, 8% of them (n=4) had intermenstrual bleeding, and in group II, 24% of them (n=12), which is shown in graph 1.



Graph 2: Postcoital bleeding

Out of a total of 100 subjects in both examined groups, only 34% had postcoital bleeding. An equal number of subjects in both groups had postcoital bleeding, 34% (n=17), which is shown in graph 2.

Table 1: Percentage of abnormal appearance of the cervix of the entire sample

Abnormal Appearance of the Cervix (Suspected Malignancy)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	70	70.0	70.0	70.0
	Yes	30	30.0	30.0	100.0
	Total	100	100.0	100.0	

Out of a total of 100 subjects in both examined groups, only 30% had an abnormal appearance of the cervix. In both examined groups, we have an equal number of subjects with an abnormal appearance of the cervix, 30% (n=15).

Table 2: Percentage of the presence of condylomas in the entire sample

Presence of Condylomas					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	79	79.0	79.0	79.0
	Yes	21	21.0	21.0	100.0
	Total	100	100.0	100.0	

Out of a total of 100 subjects in both examined groups, 21% had condylomas. In group I, there is a significantly higher number of test subjects with the presence of condyloma, 28% (n=14), compared to group II, where we have 14% (n=7) of test subjects with the presence of condyloma.

Table 3: Presence of vaginal secretions of the entire sample

Vaginal Secretions					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	40	40.0	40.0	40.0
	Yes	60	60.0	60.0	100.0
	Total	100	100.0	100.0	

Out of a total of 100 test subjects in both investigated groups, the presence of vaginal secretions was recorded in 60% of test subjects. In group I, 54% of them (n=27) had vaginal discharge, and in group II, 66% of them (n=33).

Table 4: Presence of pain in the pelvis for the entire sample

PELVIC PAIN					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	NO	75	75.0	75.0	75.0
	YES	25	25.0	25.0	100.0
	Total	100	100.0	100.0	

Pain in the pelvis was present in 25% of the subjects of both examined groups. In group I, 24% (n=12) had pelvic pain, and in group II, 26% (n=13)

3. Discussion

The treatment of cervical intraepithelial neoplasia grade II/III (CIN II/III), (CIN III/CIS) consists in a conservative surgical approach using the electrosurgical excision procedure (LLETZ), which guarantees surgical radicality and preserves the functional integrity of the cervix, given that young women are most affected by these pathologies. Treatment of CIN II/III or carcinoma in situ (CIS) with LLETZ is effective and most patients do not require further treatment. However, about 23% of patients develop CIN II/III after conservative treatment due to residual or recurrent lesions. (6)

Analysis of sociodemographic data revealed that the oldest respondent was 65, while the youngest was 23 years old. By analyzing the results of the symptoms of the current disease, we came to the following data. In group I, 8% of them (n = 4) had intermenstrual bleeding, and in group II, 24% of them (n = 12). In a study by Tahir et al., which analyzed the symptoms reported by women with premalignant and malignant lesions of the cervix, and 210 women were included in the study, it was found that intermenstrual bleeding was present in 10% of women (7), which in

correlation with the results of our research (considering that the average age of the respondents included in this research is 39.51 ± 8.32 years).

In our research, we have an equal number of subjects who had postcoital bleeding in both examined groups, 34% ($n = 17$). In the study by Tahir et al., postcoital bleeding occurred in only 5.7% of cases (7), which does not correlate with the results of our research. Cohen et al conducted a study to identify risk factors for dysplasia/cancer in patients with postcoital bleeding (PCB). Using the database of the health institution for women's health, all women who reported PCB in the period 2012-2015 were identified. PCB records of patients in one colposcopy center were reviewed. The annual incidence of PCB ranged from 400 to 900 per 100,000 women, mostly among patients aged 26-30 years (8), in our study, postcoital bleeding occurs in both younger and older populations.

Among a sample of 411 PCB cases with colposcopy, 201 (48.9%) underwent biopsy. Biopsy results included 68 cervicitis (33.8%), 61 koilocytosis/CIN I/condyloma (30.3%), 44 normal tissues (21.9%), 25 cervical polyps (12.4%), 2 CIN II /III (1%) and 1 cancer (0.5%). The positive predictive value for koilocytosis/CIN I or higher pathology was 15.6% (64/411) and 0.7% for CIN II or higher grade pathology (3/411) (56). Also, in our research, in both examined groups, we have an equal number of subjects with an abnormal appearance of the cervix, 30% ($n = 15$). In group I, there is a significantly higher number of test subjects with the presence of condyloma - 28% ($n = 14$), compared to group II, where we have 14% ($n = 7$) of test subjects with the presence of condyloma. In our study, in group I 54% ($n = 27$) had vaginal discharge, and in group II 66% ($n = 33$). In group I 24% ($n = 12$) had pelvic pain, and in group II 26% ($n = 13$). In the study by Tahir et al., vaginal discharge was reported by 89 (42.4%) women, and pelvic pain was reported by 60 (28.6%) (7), which correlates with our results.

4. Conclusion

In conclusion, cervical intraepithelial neoplasia often progresses asymptotically, underscoring the value of HPV genotyping and regular screening programs for early detection. Public health initiatives should prioritize awareness campaigns to promote cervical cancer screenings and reduce the prevalence of advanced-stage diagnoses.

The significance of this study lies in its potential to aid in the early identification of cervical dysplasia symptoms, promoting timely interventions and reducing mortality associated with cervical cancer.

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