

MANAGEMENT STRATEGIES FOR PREGNANT WOMEN WITH GENITAL CONDYLOMATOSIS IN THE SECOND AND THIRD TRIMESTERS OF GESTATION

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Abstract

The article is devoted to one of the most frequent manifestations of papillomavirus infection - condylomas detected in the II and III semesters of pregnancy and the rational introduction of such patients. Purpose: To determine the optimal management strategy for pregnant women diagnosed with genital condylomatosis during the second and third trimesters and to summarize relevant domestic and international research findings. Materials and Methods: The study included 80 pregnant women aged 17 to 30 years with genital condylomatosis. All participants underwent HPV blood testing, cytological examination, colposcopy, and concurrent treatment of sexual partners. Conclusion: The combination therapy, which included Viferon, Acyclovir, Epigen spray, and cryodestruction – adjusted to the trimester of pregnancy – and laser coagulation, proved effective in accelerating the resolution of HPV-associated lesions. This approach significantly reduced recurrence rates and lowered the risk of carcinogenesis due to enhanced HPV elimination. The treatments demonstrated good tolerability and compatibility, making them suitable for broader clinical use in managing HPV during pregnancy.

Keywords: HPV infection, condylomas, laser therapy, immunocorrection therapy.

Introduction

Over the past decades, many countries around the world, including Central Asia, have reported an increase in human papillomavirus (HPV) infections and a rise in pregnancy complications associated with this pathology. HPV is detected in approximately 20% of women aged 17-30 years. Human papillomavirus infection (HPV) complicates pregnancy by contributing to the risk of miscarriage, adversely affecting fetal health, serving as a risk factor for vertical transmission of HPV from mother to newborn, and leading to the manifestation of intrauterine infection. The aim of our study was to determine the management tactics for women with genital condylomatosis during the second and third trimesters of pregnancy.



1. MATERIALS AND METHODS

Clinical, laboratory, instrumental, and statistical methods were used in the study. A total of 80 pregnant women aged 17 to 30 years with genital condylomatosis were examined. According to the pregnancy trimester, the women were divided into two groups: Group one consisted of 40 (50%) women in the second trimester, and Group two consisted of 20 (25%) women in the third trimester (Fig. 1).

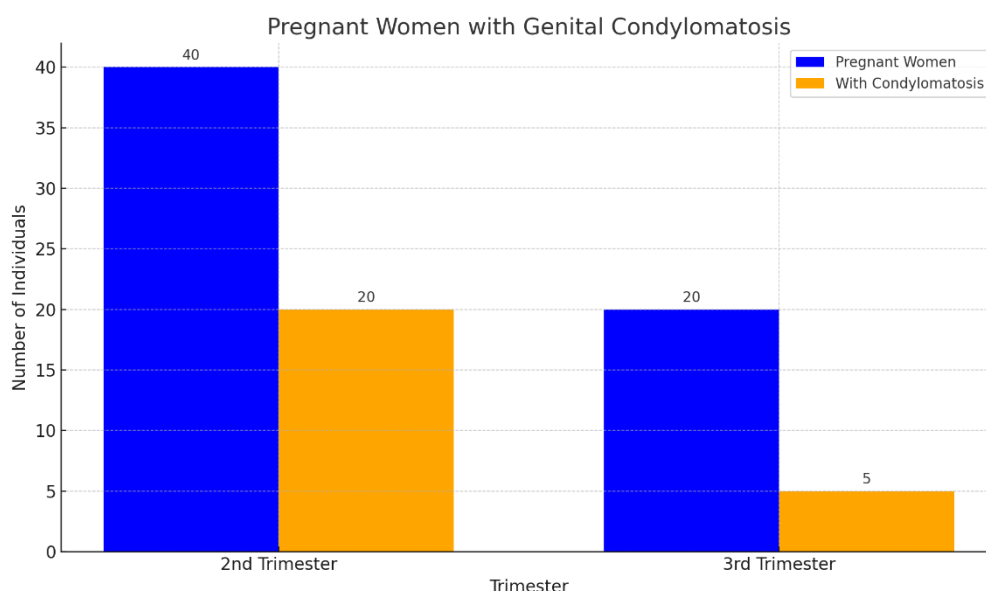


Fig. 1. Examination results of pregnant women in the 2nd and 3rd trimesters

All pregnant women diagnosed with genital condylomatosis underwent the following examinations: detection of HPV in the blood, cytological smear analysis, colposcopy, consultation with a dermatologist-venereologist, and mandatory concurrent treatment of their sexual partners to prevent recurrence. Statistical analysis of the data was performed using SPSS for Windows version 16.0. For primary data processing, the results were coded and organized into Microsoft Excel spreadsheets. The frequency of clinical manifestations was calculated using both relative (%) and absolute (n) values.

To assess the differences between groups, Pearson's chi-square test (χ^2) was used, which allows for the identification of statistically significant differences in the frequency of categorical features. This test was selected because the studied variables were qualitative (categorical) in nature – for example, the presence or absence of condylomatosis or the characteristics of colposcopic findings. Differences between the compared groups were considered statistically significant at a p-value of less than 0.05, which aligns with accepted standards in medical research.

At present, there is no unified standard for the treatment of patients with HPV-associated infections. The primary treatment approaches for HPV-related diseases are based on destructive methods. These include the use of cytotoxic drugs (such as podophyllin, podophyllotoxin, 5-fluorouracil, etc.); chemical destruction methods (e.g., with trichloroacetic acid, Solcoderm, and others); and physical destruction methods (such as cryotherapy, electrosurgery, CO₂ laser vaporization, radio wave surgery, argon plasma ablation, and photodynamic therapy). While

effective, these destructive techniques are often associated with a considerable degree of trauma to the tissues.

Pharmacological agents with antiviral and immunomodulatory properties act by inhibiting viral replication and enhancing the body's immune defenses, particularly in patients with immune system impairments. Adequate antiviral and immunotherapy plays a crucial role in eliminating the virus, reducing the frequency of relapses, and improving the overall effectiveness of treatment for HPV-associated conditions.

2. RESULTS AND DISCUSSION

Based on the results of cytological examination and HPV detection in blood samples, the most frequently encountered HPV type across all anatomical locations in patients with genital warts was identified. Analysis of HPV type detection frequency in tissues showed that HPV was found in 65 patients (81.2%), while 15 patients (18.7%) demonstrated false-negative results.

Extended colposcopy and vulvoscopy were performed for all patients ($n = 80$). A normal colposcopic pattern was observed in 70 patients (87.3%), whereas abnormal colposcopic findings were detected in 10 patients (12.5%) (Table 1).

Table 1.

Results of HPV Testing and Colposcopy in Patients with Genital Warts ($n = 80$)

<i>Indicator</i>	<i>Number of patients</i>	<i>Share (%)</i>
HPV detected in tissue	65	81,2%
False negative result	15	18,7%
Normal colposcopic picture	70	87,5%
Abnormal colposcopic picture	10	12,5%

Since the severity of epithelial changes correlates with the degree of pathological progression, the findings were classified into mild (delicate acetowhite epithelium, fine mosaic or punctuation) and severe changes (dense acetowhite epithelium, coarse punctuation, presence of atypical vessels). Along with extended colposcopy, vulvoscopy was also performed. In cases where lesions suspicious for condylomata acuminata were detected, an acetic acid test with a 3% solution was conducted to confirm the diagnosis.

The diagnosis of genital warts was confirmed by vulvoscopy in 75 (93.7%) patients from Group 1, and in 5 (6.2%) patients from Group 2, there was a combined lesion of the vagina and vulva. Upon examination by a dermatologist-venereologist, the diagnosis of condylomatosis was confirmed in all 80 (100%) women in the 2nd and 3rd trimesters of pregnancy (Table 2).

Table 2.

Diagnosis of genital warts

<i>Group</i>	<i>Number of patients</i>	<i>Share (%)</i>
Group 1 (vulva only)	75	93,7
Group 2 (vagina + vulva)	5	6,2
Overall (2nd and 3rd trimesters)	80	100

To date, considerable experience has been accumulated in the management of pregnant patients infected with HPV. Among the agents approved for the treatment of human papillomavirus infection, VIFERON® – a human recombinant interferon- α 2b (IFN- α 2b) combined with antioxidants (vitamins E and C) – is widely used in the form of ointment, gel, and suppositories. VIFERON® is included in the list of essential medicines and is authorized for use in children from birth and in pregnant women from the 14th week of gestation onward.

Management protocol for women diagnosed with genital condylomatosis in the second trimester consisted of:

- Both the pregnant patient and her spouse received Acyclovir 400 mg orally, one tablet twice daily for 5 days.
- VIFERON® suppositories, 500 IU per rectum twice daily for 10 days.
- Topical Epigen® spray, applied locally for 10 days.

Upon completion of this antiviral and immunomodulatory course, patients were re-evaluated and referred for laser coagulation. In Group 1 (lesions confined to the vulva), vaginal delivery was achieved in the majority of cases; only 10 patients (25%) underwent cesarean section for obstetric indications. In Group 2 (lesions of both the vagina and vulva), after diagnosis confirmation, all 20 patients (100%) were promptly treated with laser coagulation without prior antiviral or immunocorrective therapy due to their late presentation. All group 2 deliveries were completed by cesarean section.

These findings underscore the importance of early diagnosis and timely initiation of combined antiviral, immunomodulatory, and partner-treatment regimens in pregnant women with condylomatosis to optimize outcomes.

3. CONCLUSION

Combined immunomodulatory and antiviral therapy, along with laser coagulation, administered during the second trimester of pregnancy, is more effective than monotherapy (surgical excision without follow-up treatment) in reducing the recurrence rate of external genital condylomas in women. This approach also decreases the rate of cesarean deliveries and promotes HPV elimination. In Group 1, only 10 women (25%) required cesarean section, compared to all 20 patients in Group 2 (100%).

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