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Case Report

Condyloma acuminata in pregnancy: clinical profile and management

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ABSTRACT

Condyloma acuminatum, also known as mucocutaneous external genital warts, is a benign neoplasm of the genital tract caused by human papillomavirus most commonly types 6 and 11. Here we present a case of 24-weeks unbooked primigravida who presented with complaints of vulval itching and a mass over the vulva for six months. Genital examination revealed multiple papillomatous growths arising from the vulva, no bleeding on touch. At 24 weeks of gestation vulval biopsy was performed and the report showed condyloma acuminatum. She presented in early labor pain with complete spontaneous resolution of the lesions at 39 weeks of gestation. She underwent a spontaneous vaginal delivery. Both mother and neonate were healthy in the postnatal period. This case highlights that condyloma acuminatum may regress spontaneously during pregnancy and is not an indication for caesarean section.

Keywords: Condyloma acuminata, Pregnancy, Human papillomavirus, Anogenital warts, Genital warts, Obstetric management

INTRODUCTION

Condyloma acuminatum is a benign neoplasm of the genital tract caused by human papillomavirus most commonly types 6 and 11.^{1,2} Although intermediate-and high-risk oncogenic types may also be involved.

In pregnancy, condyloma acuminatum is considered an opportunistic condition due to physiological and immunological changes. Increased vascularity, altered immune response and enhanced vaginal secretions promote HPV replication and lesion proliferation. Lesion commonly involve the genital skin, vaginal mucosa, perianal region, and anal mucosa. They tend to increase in size and number during pregnancy and may recur. Risk for condyloma acuminata are poor hygiene, local irritation, immunosuppression (human immunodeficiency virus (HIV) infection), multiple sexual partner and anal intercourse. This report describes a case of condyloma

acuminatum managed conservatively during pregnancy with spontaneous regression prior to delivery.

CASE REPORT

A 28-year-old unbooked primigravida presented at 24 weeks of gestation with complaints of vulval itching and a vulval mass for six months. She had been married for six months and initially noticed a small pea-sized lesion on the labia minora during the first month of pregnancy. The lesion gradually increased in size and extent, involving the labia minora and extending into the vagina up to the upper one-third at 24 weeks of gestation. The cervix appeared normal. There was no history of pain or bleeding from the lesions. There was no significant past medical history. Both the patient and her spouse denied any history of similar lesions in the past or extramarital sexual exposure. There was no history of trauma, diabetes mellitus, oral ulcers, urinary symptoms, abnormal vaginal discharge,

weight loss or loss of appetite. General and systemic examinations were within normal limits. Obstetric examination findings were consistent with the gestational age. On genital examination, multiple irregular wart-like growths were observed involving the labia minora and extending into the vagina. The lesions were firm in consistency without signs of inflammation.



Figure 1: Initial presentation of patient with this lesion at 6 months of amenorrhea.

Routine antenatal investigations were within normal limits. Serological tests for venereal disease research laboratory (VDRL) and HIV were non-reactive. Due to the rapid growth of lesions during pregnancy biopsy was performed to confirm the diagnosis.

Microscopy

Histopathological examination confirmed the diagnosis of condyloma acuminatum. Findings included: stratified squamous epithelium, hyperkeratosis and parakeratosis, acanthosis, papillomatosis, prominent granular layer, and parabasal hyperplasia.

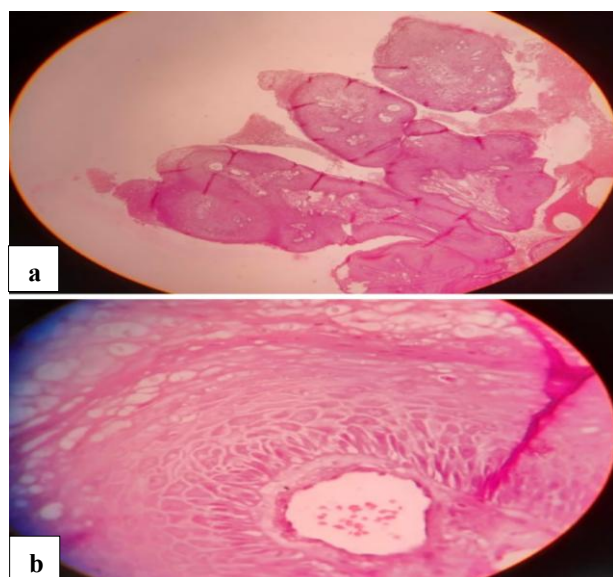


Figure 2: (a) Papillomatosis (finger-like projections), and (b) fibrovascular cores with koilocytes.

At 39 weeks of gestation, she presented in early labor. Notably, the genital lesions had completely regressed.

She progressed to active labor and delivered vaginally. The neonate was healthy, with no similar lesions. The postpartum period was uneventful.

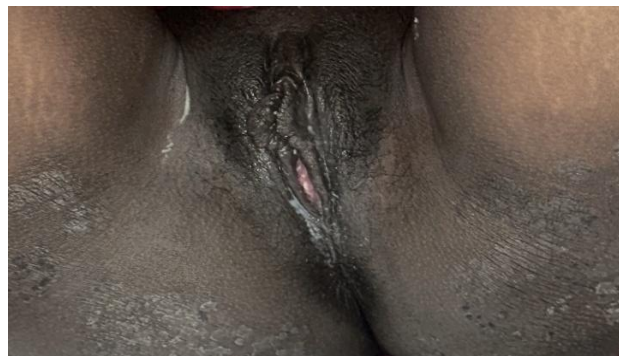


Figure 3: Spontaneous regression at 9 months of amenorrhea.



Figure 4: After spontaneous vaginal delivery.

DISCUSSION

HPV infections manifest within two years in approximately 90% of cases, although a prolonged latent period is possible. Thus, initial presentation or recurrence of condyloma acuminatum may occur years after infection. Vertical transmission of HPV may occur during pregnancy or delivery.² However, the risk is low. Although neonatal complications such as juvenile-onset recurrent respiratory papillomatosis (JORRP) can occur, they are rare (1-4 per 100000 children), genital warts typically present as flat, papula, or pedunculated lesions and are often asymptomatic, though itching or discomfort may occur. Diagnosis is primarily clinical with histopathological confirmation when required. HPV nucleic acid testing is not routinely recommended for visible genital warts.

In pregnancy, lesions often proliferate due to immunosuppression, particularly reduced CD4+ activity. The choice of treatment should be guided by patient preference. However, in this case, spontaneous regression occurred before delivery which is relatively uncommon. Recurrence after an incomplete excision or reinfection to

the surrounding tissue remained can be frequent and follow-up visits for signs of recurrence would be warranted.³ Viral transmission is essentially sexual, with only 1-3% of women, depending on the series, actually developing condylomas.⁴ Risk for condyloma acuminata are poor hygiene, local irritation, immunosuppression (HIV infection), multiple sexual partner, and anal intercourse.⁵

Approximately 20–30% of lesions may regress during pregnancy, with higher regression rates postpartum period. Cryotherapy is generally recommended as first-line treatment due to its safety and efficacy. Laser therapy is a second-line option carbon dioxide (CO₂) laser therapy is effective treatment for extensive or recalcitrant genital warts in pregnant women.⁶ Condyloma acuminata features tendency toward local recurrence and conversion into squamous cell carcinoma in the anorectal and perianal regions after excision is 60–66%, with an overall mortality of 20–30%.⁷ The development of malignancy has been reported in 30–56% of cases. In this case, squamous mucosa with dysplasia and the viral cytopathic effect were noticed, signs of expectable spontaneous regression.⁸ Regression usually occurs postpartum period with restoration of immune function. A previously reported case presented with active condylomatous lesions at term gestation during early labour and underwent emergency lower segment caesarean section. Complete spontaneous regression of the lesions was observed 12 weeks postpartum. Unlike previously reported cases, our patient exhibited spontaneous regression of the lesions before term, enabling a normal vaginal delivery.

Management

Treatment options include: cryotherapy, laser therapy, imiquimod, photodynamic therapy, trichloroacetic acid, and local hyperthermia.

Cryotherapy is generally recommended as first-line treatment due to its safety and efficacy. Laser therapy is a second-line option CO₂ laser therapy is effective treatment for extensive or recalcitrant genital warts in pregnant women. The benefits of this modality noting minimal postoperative pain and blood loss with successful vaginal deliveries reported. The precision of CO₂ laser allows for targeted removal of warts, minimizing mechanical difficulties and reducing viral transmission risks to the infant. However, it is crucial to note potential postpartum recurrences and preterm uterine contractions. In conjunction with trichloroacetic acid, CO₂ laser therapy yields a 97% success rate in wart control. Available data are limited regarding the use of imiquimod during pregnancy. Treatment during pregnancy should be individualized. Vaginal delivery is safe unless lesions

obstruct the birth canal or pose a risk of excessive bleeding. Caesarean section is not routinely indicated. The recent availability of an HPV vaccine includes HPV 6 and 11 has had beneficial impact on the incidence of vulval condyloma.

CONCLUSION

Condyloma acuminatum is a common HPV-related condition encountered during pregnancy. The risk of vertical transmission is low. Lesions may either proliferate or regress spontaneously. Conservative management is often appropriate condyloma acuminatum alone is not an indication for caesarean section; the mode of delivery should be individualized based on lesion size, location, and obstetric indications.

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Ethical approval: Not required

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