

Condyloma Acuminatum in a 3-year Old Girl

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ABSTRACT

We report the case of 3-year-old girl with condyloma acuminatum. She was brought to our clinic with pruritus, painful urination and foul discharge and treated with electrocautery. Histological examination revealed acanthosis, nuclear basophilic inclusions and vacuolar degeneration. In this case, transmission of the human papilloma virus might have occurred during close, non-sexual contact with the infected mother, and the depressed immune response associated with atopic dermatitis appears to have played an important role in the development of the condyloma acuminatum infection.

Key words: *Condyloma acuminatum, Child, Atopic dermatitis*

Condyloma acuminatum is a lesion of viral etiology commonly seen on mucocutaneous surfaces of the external genitalia and urethral meatus. The lesion is observed more frequently in adults and considered rare in the pediatric age group since the mode of transmission of a viral agent is venereal. Here we report a rare case of condyloma acuminatum which developed in infancy.

CASE REPORT

A 3-year-old girl was brought to our clinic with a one-week history of foul discharge, pruritus and painful urination. There was no evidence of sexual abuse. However, atopic dermatitis had been present from the age of 7 months. Six months prior to the child's admission, her mother had developed condyloma acuminatum on the inner labial fold and had been treated with electrocautery 1 month later. Physical examination showed multiple, granular, soft, pink, pedunculated warts on the labia minor, pronaus and perineal skin (Fig. 1). Histologic examination of biopsied specimen revealed moderate acanthosis, nuclear basophilic inclusions and vacuolar degeneration (Fig. 2). There was no evidence of sexual abuse or other sexually transmitted diseases. No vesical lesions were found on cystoscopy. The child was treated with electrocautery under general anesthesia and thereafter no recurrence has been seen.

DISCUSSION

Condyloma acuminatum occurs as a result of human papilloma virus infection. This virus belongs to the papovavirus family⁷⁾. There are more than 20 subtypes of human papilloma virus (HPV) and most condyloma acuminatum are caused by HPV 6, HPV 11 and HPV 16⁶⁾. In the present case, pathological findings were acanthosis, elongated

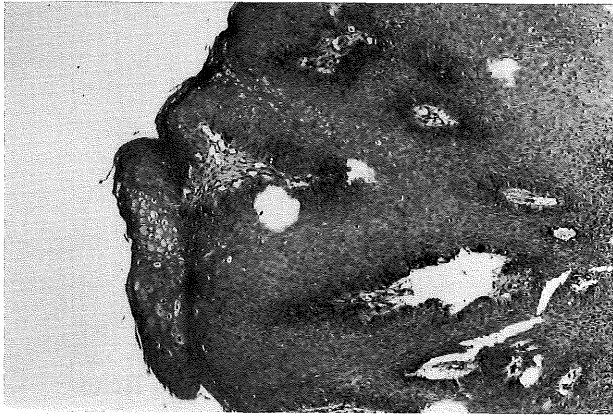
dermal papillae and nuclear basophilic inclusions in epithelial cells. Those inclusions are thought to be aggregates of virus particles seen in the electron microscope¹⁾.

Condyloma acuminatum has a predilection for moist skin areas, particularly in the genital region⁴⁾. On a rare occasion, there has been a



Fig. 1. Condylomata acuminata involving labia minor, pronaus, and perineal skin.

(A)



(B)

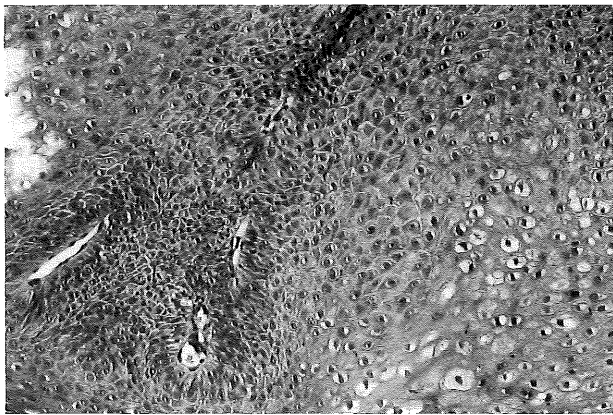


Fig. 2. Light micrograph showing moderate acanthosis, nuclear basophilic inclusions and vacuolar degeneration. H & E stain, (A)×80, (B)×200.

report of laryngeal papillomas appearing in infant whose mother had vulval warts at the time of delivery⁹). HPV infections appear to be spread through direct skin to skin contact, and thus condyloma acuminatum occurs primarily as a result of sexual activity⁶).

An increase in the frequency of condyloma acuminatum in the pediatric age group may be expected with increased early sexual activity. Therefore, the presence of condyloma acuminatum in children should alert the physician to the possibility of sexual abuse⁸). On the other hand, nonsexual transmission of condyloma acuminatum has been demonstrated in the report of an infant found to have fully developed condyloma acuminatum at the time of birth¹¹). This was also confirmed by the case described here of a child with condyloma acuminatum but with no sexual encounter. Local trauma⁶), diabetes⁹), depressed cell-mediated immune response²) and inherited atopic diathesis³) are the factors predisposing to viral infections. It is also suggested that atopic patients may have an

increased susceptibility to warts³). The mechanisms underlying the increased susceptibility to viral infections in atopic dermatitis may be related to immunological aberrations that are secondary to a basic abnormality in fatty acid or cyclic AMP metabolism¹⁰). In the present case, transmission of HPV might have occurred during close, nonsexual contact with the infected mother, and the depressed immune response associated with atopic dermatitis appears to have played an important role in the development of the condyloma acuminatum infection.

In recent years, condyloma acuminatum appears to be increasing in frequency among the adult population⁸), and the incidence of condyloma acuminatum in children is predicted to increase proportionately with exposure to the disease by infected adults. While reported cases are few, children with condyloma acuminatum seem to be present in no small numbers.

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