

Male genital condylomatosis in partners of females affected with HPV infections

Clinical statistical contribution

S. CAROTI - F. SILIOTTI - A. CAROTI (*)

Summary: After a brief introduction, the Authors report the results of a clinical-“peniscopic” study of the genital regions in 56 male patients who were partners of females affected with genital condylomatoses.

The results obtained show the importance of examining the male genital region under high magnification (peniscopy), especially if we consider recent research which indicates the close relationship between HPV, VIN, CIN and carcinoma of the cervix.

Key words: Sexually transmitted disease; genital condylomatosis.

Until a few years ago, the only known clinical manifestation of Human Papilloma Virus (HPV) genital infection was the exophytic form, better known as condyloma acuminata. It was only in 1976 that Meisels detected another aspect of the viral lesion which he called “flat condyloma”. Even today, no general agreement exists on the classification of genital condylomatosis. Common, consensus has been reached that HPV genital infection does not manifest itself only as multiple papillomatoses, easily visible with the naked eye (florid condyloma acuminata) but also as an initial florid condylomatosis (microflorid pointed condylomas) and condyloma lata^(8, 9, 10, 11).

Recent epidemiological studies have suggested a closed association between viral lesions (HPV), intraepithelial cervical neoplasia and cervical carcinoma^(1, 2, 3, 5, 6, 7, 11, 14, 15).

After identification by hybridization techniques of numerous HPV “families”, each with a different oncogenic potentiality, screening the male partner becomes particularly important in the prevention of neoplasias of the female genital organs^(5, 6, 13, 14, 15).

MATERIAL AND METHODS

This work was aimed at carrying out an accurate clinico-“peniscopic” study of the male genital region to detect the presence of ano-genital condylomatosis in male partners of females affected with genital condylomatosis. It was intended to define the natural course of the viral lesion in what can be called “partner at risk”. To achieve this, we examined 56 males whose consorts were affected with genital condylomatoses, associated or not with cervical intraepithe-

Civil Hospital - Dolo (Venice, Italy)
Gynecological and Obstetric Division
(Consultant: Prof. I. Siliotti)

(*) Dermatologic Division
(Consultant: Dott. F. Torregrossa)

Table 1. - *Genital condylomatosis in males. Site of lesion.*

Site of lesion	no.	%
Balano-Preputial Sulcus (BPS)	9	30
Glans	5	16.7
Frenulum	6	20
Shaft	3	10
BPS + Frenulum + Shaft	5	16.7
Perineum	2	6.6
Total	30	100%

lial neoplasia (CIN) or vaginal intraepithelial neoplasia (VIN).

The female genital lesion was diagnosed by a Pap test, colposcopy and possibly histological examination.

Diagnosis of male infection was carried out after cytologic examination and inspection with the colposcope (peniscopy) both directly and after 5% acetic acid had been used. Colposcopic examination particularly showed the presence of flat and micro-florid condylomas which would not otherwise have been visible.

Before the male partner was included in the study, it was important to determine if he had been the only partner of the female affected with genital condylomatosis.

RESULTS

Viral lesions were found in 53.7% cases (30 out of 56) (Table 1).

The site of the lesion of the male partner was then related to its localization in the female consort (Table 2).

Partners of the negative male population were affected in 18 cases (69.2%) with condyloma lata with cervical localization, and in 8 cases (30.8%) with mixed forms, i.e., both flat and florid with multiple sites.

Lesions of positive patients were flat in 4 cases (13.3%) and in their partners only cervical condyloma lata were found. In 26 cases (86.7%), florid and microflorid cases were detected corresponding in the female genital tract to flat lesions (40%) or florid-microflorid lesions (60%) with multiple sites.

DISCUSSION AND CONCLUSIONS

The limited number of cases and the brief follow-up period does not permit us to draw any statistically significant conclusions. However, viral lesions in the male partner of a woman affected with genital condylomatosis have a high incidence (53.7%).

Thus, our study leads us to stress the importance of the high magnification examination (peniscopy) after application of 5% acetic acid to detect, also in the male consort, the possible presence of flat or micro-florid condylomatous lesions and thus avoid false negative diagnoses.

The above mentioned becomes particularly important because of increasingly more evident relation between HPV,

Table 2. - *Site of lesion in males in relation to the partner.*

	BPS	Glans	Frenulum	Shaft	BPS+Shaft	BPS+ Shaft+Perineum	Total
Cervix	2	4	1		1		8 (26.7%)
Vulva				2			2 (6.7%)
Vulva	2		4	1	2		9 (30%)
Cervix+Vagina	2					1	3 (10%)
Vulva+Vagina	1		1		1	1	4 (13.3%)
Cervix+Vulva	2	1			1		4 (13.3%)
Total	9 (30%)	5 (16.7%)	6 (20%)	3 (10%)	5 (16.7%)	2 (6.6%)	30 (100%)

BPS = Balano-Preputial Sulcus

VIN, CIN and cervicocarcinoma (2, 3, 5, 6, 7, 14, 15).

In the past, literature had pointed out the possibility that HPV genito-anal lesions (considered to be benign as condyloma acuminata) represent a carcinomatous risk factor. In the region of condyloma acuminata, in 15% of cases we found carcinoma of the penis, in 5% those of the vulva and in a non-defined percentage those of the anus. However, the development of genital carcinomas probably appears earlier in subjects affected with condyloma acuminata (1, 4, 6, 12).

Nevertheless, in condyloma acuminata we find DNA type 6 and 11 of HPV (rare in genital carcinomas) and only rarely DNA type 16 and 18 (typical of genital carcinomas) (2, 5, 11).

In the light of the present knowledge, the heterogeneity of condylomatous lesions both in males and females, may lead to different morpho-biological lesions depending on the virus involved (7, 14).

In the partner of the patient with HPV lesions, we can observe various potentially oncogenic lesions related to viruses (14, 15).

Other subjective co-factors, such as the relationship with the host and the incubation period of the virus, certainly play important roles in the development of neoplastic lesions but these are difficult to interpret and define (1, 6, 7, 11, 14, 15).

Thus, since we cannot presently determine an association between morphological lesions and HPV subgroups with all their various oncogenic potentialities, we consider it appropriate to carry out a careful evaluation of the "partners at risk" through a "complete depistage" (11, 13).

REFERENCES

- 1) Campion M. J. et Coll.: "Increased risk of cervical neoplasia in consorts of men with penile condylomata acuminata". *The Lancet*, 27, 943, 1985.

- 2) Crum C. P. et Coll.: "Human papillomavirus type 16 and early cervical neoplasia". *N. Engl. J. Med.*, 310, 880, 1984.
- 3) Falcone E. T., Ferenczy A.: "Cervical intra-epithelial neoplasia and condylomas: an analysis of diagnostic accuracy of post treatment follow-up methods". *Am. J. Obst. Gyn.*, 154, 260, 1986.
- 4) Ferenczy A.: "Evaluation and management of male partners of condyloma patients. Colp. & Gynecol.". *Laser Surgery*, 1, 15, 1986.
- 5) Gissmann L. et Coll.: "Analyses of human genital warts (condylomata acuminata) and other genital tumors for human papillomavirus type 6 DNA". *Int. J. Cancer*, 29, 143, 1982.
- 6) Kadish A. S. et Coll.: "Human papillomavirus of different types in precancerous lesions of the uterine cervix: histologic, immunocytochemical and ultrastructural studies". *Hum. Pathol.*, 17, 384, 1986.
- 7) Levine et Coll.: "Cervical papillomavirus infection and intraepithelial neoplasia: a study of male sexual partners". *Obst. Gyn.*, 64, 16, 1984.
- 8) Meisels A. et Coll.: "Condylomatous lesions of the cervix and vagina. I. Cytologic patterns". *Acta Cytol.*, 20, 505, 1976.
- 9) Meisels A. et Coll.: "Condylomatous lesions of the cervix. II. Cytologic, colposcopic and histopathologic study". *Acta Cytol.*, 21, 379, 1977.
- 10) Meisels A. et Coll.: "Human papillomavirus infection of the cervix. The atypical condyloma". *Acta Cytol.*, 25, 7, 1981.
- 11) Meisels A. et Coll.: "Human papillomavirus and cancer of the uterine cervix". *Gynecol. Oncol.*, 12, 111, 1981.
- 12) Oriel J. D.: "Natural history of genital warts". *Br. J. Vener. Dis.*, 47, 1, 1971.
- 13) Zunzunegui M. V. et Coll.: "Male influences on cervical cancer risk". *Am. J. of Epid.*, 123 (2), 302, 1986.
- 14) zur Hausen H.: "Human papillomavirus and their possible role in squamous cell carcinomas". *Curr. Top. Microb. Immunol.*, 78, 1, 1977.
- 15) zur Hausen H.: "Human genital cancer: synergism between two virus infections or synergism between a virus infection and initiating events?". *The Lancet*, 2, 1370, 1982.

Address reprint requests to:

Dr. F. SILIOTTI
Clinica Ostetrica e Ginecologica
Università degli Studi
Via Giustiniani, 3 - 35128 Padova