ON THE NATURE OF CONDYLOMA ACUMINATUM OF THE PENIS

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ON THE NATURE OF CONDYLOMA ACUMINATUM OF THE PENIS

[Following is the translation of an article by A. L. Shabad, Urology Department (Head -- Prof. A. P. Frumkin) of the Central Institute for the Improvement of Doctors and the Urology Section of the S. P. Botkin Order of Lenin Clinical Hospital (Head Surgeon -- Associate Professor Yu. G. Antonov), appearing in the Russian-language periodical Vestnik Dermatologii i Venerologii (Herald of Dermatology and Venerology) Vol 37, Sept, 1963, pages 53-56. It was submitted on 20 Sept 1962. Translation performed by Sp/7 Charles T. Ostertag Jr.]

Cases of condyloma acuminatum have been described in literature for a long time. It is encountered not infrequently, is localized on the external parts of the body and is easily accessible for investigation.

However, up until the present there is no united opinion on the nature of the pathological process underlying this disease; are these true tumors or vegetation of an inflammatory nature? In the majority of textbooks, condyloma acuminatum is described in the chapter on tumors. However, many of the authors of these books do not consider it as a true tumor, but as a pseudotumoral formation (I. M. Epshteyn; Willis; Dixon and Moore).

Also the etiology of condyloma acuminatum has not been cleared up completely. Already in 1908 Serra carried out the transplantation of condyloma acuminatum from man to man by means of the inoculation of the cell-free filtrate from the tissue of condylomas. However, many of the modern authors do not make reference to the viral etiology of this disease, considering it the result of irritation of the epithelium by the inflammatory exudate during urethritis, balanoposthitis, vaginitis and cervicitis. According to tradition, condyloma acuminatum has been accepted as a postgonorrheal complication.

The problem also remains unclear concerning the relationship of condyloma acuminatum of the penis to cancer of this organ. Numerous observations have been described of the transition of condyloma acuminatum of the penis into a carcinoma. These have been confirmed histologically. In the literature of recent years, reports of specific cases of conversion of condyloma acuminatum into cancer have been encountered more rarely (Moriame; Wolf; Miescher and Fischer).

We studied condyloma acuminatum of the penis in 21 hospitalized and 39 ambulatory cases in the Urology Section of the S. P. Botkin Clinical Hospital. Two patients were in the age group 19--20 years, 47 patients in the 21--30 year group, 9 patients in the 31 to 40 year group, one was 41 years old, and one was 78. Of these patients, 48 were studied in more detail.

With questioning 11 of the patients had gonorrhea, 2 -- trichomonal ureteritis, and 2 -- balanoposthitis. In 33 of the patients condyloma acuminatum made its appearance without any previous signs or symptoms of an inflammatory process. These data make it possible to contradict the etiological role of gonorrhea and nonspecific inflammatory diseases of the genitalia in the onset of condyloma acuminatum.

Our observations shed light on the true etiology of this disease. The majority of the patients were not married and had various sexual contacts. Only with eight patients was it possible to examine the female partner. In 6 out of the 8 women condyloma acuminatum of the external genitalia was detected. One of these observations is noteworthy.

Patient U., 26 years old, sought aid because of complaints of the presence of warty proliferations on the inner fold of the prepuce. A month prior to the disease -- there was a cut on the prepuce during intercourse with the wife. During recent months the wife had condyloma acuminatum of the vulva. During an examination of the dorsal surface of the inner fold of the prepuce several minute warty formations were exposed on the crus, surrounding a small scar (scar of the cut) and partially arising from it. Diagnosis: Condyloma acuminatum of the penis. Electrocoagulation of the condylomas was carried out under infiltration anesthetic novocaine.

The following observation is also an illustration of the infectiousness of condyloma acuminatum.

Patient M, 21 years old, was seen in connection with condyloma acumination in the area of the frenum of the penis. This was completely destroyed by electrocoagulation. He is married and his wife is healthy. Extramarital relations were presistently denied. In two months he returned with a recurrence of the disease and reported that the same formations appeared on his wife a month after their appearance on him. During an examination of the wife, several typical condylomas were detected in the introitus vaginae. After detailed questioning, M acknowledged that 5-6 months prior to the appearance of the condylomas he had a relation with a woman who was not well known to him.

This case serves as an example of the reverse transmission of condyloma acuminatum from the wife to the husband after the preliminary infection of the wife by the husband. It suggests that immunity to this disease does not develop.

We assume that condyloma acuminatum is contagious and is spread by the sexual route, that is, it is a separate venereal disease. The fact merits attention that out of the stationary patients over a period of 21 years, more than half (12 out of 21) were in the section during the years 1942-1944, that is, during a period of war when the frequency of all venereal diseases is increased. The incubation period in our patients fluctuated from 1 to 6 months, which approximately conforms with the experimental data of Serra (2--9 months).

Barrett, et al, report 70 males and 24 females with condyloma acuminatum. Out of the 70 males, 65 were military personnel who had had relations with women in Japan and South Korea. All 24 females were the wives of servicemen who had returned from overseas with this disease. The majority of the women noted the appearance of condylomas in 4--6 weeks following the return of the husbands. Of the native authors only B. A. Teokharov views condyloma acuminatum as a separate venereal disease. The epidemiological investigation made by him on 133 patients showed that infection with condyloma acuminatum takes place primarily by the sexual path. The disease was also detected in 63.4% of the persons investigated who had been in sexual contact with condyloma acuminatum patients.

In the opinion of L. N. Mashkilleyson, the majority of cases of condyloma acuminatum emerges without regard to previous sexual contact. However the fact itself of a higher incidence during the age of the greatest sexual activity indicates that this disease is related to sexual intercourse. As proof of this is the frequent localization of the condylomas on the inner fold of the prepuce and in the coronary sulcus, that is, in sectors which are usually closed and not in contact with the external medium, and opened only during intercourse.

In the majority of patients observed by us the so-called condyloma acuminatum had the form of fine papillomatous, warty, proliferations of a strawberry or cauliflower type and only in 10 patients with a narrow prepuce were there diffuse condyloma formations.

Thus, the term "condyloma acuminatum" is inadequate. This is proven also by the results of a histological investigation made of 27 patients. It showed a picture of papilloma (figure 1) which we noted earlier (A. L. Shabad).

A study of histological preparations showed that the detected papillomas possess unique features, distinguishing them from the usual cutaneous papillomas. These features, which were classically described by old authors (Unna, Kyrle, Maresch and Chiari), include a thin layer of epithelium and a profusely developed connective tissue stroma with a large number of dilatated vessels; vacuolization of the cells of the Malpighian layer and the appearance of spongiosis, that is, intercellular edema; parakeratosis and almost the complete absence of hyperkeratosis.

Moreover, besides the sections with only the enumerated features, as a rule there were sections completely devoid of them and characterized by a structure of a typical papilloma of the skin (with hyperkeratosis, sometimes with pearls, and in two patients with early penetration growth). In various patients the relationship of sections of condyloma and papilloma was different. We isolated two groups of preparations: With a picture characteristic for condyloma acuminatum (6 patients), and with a picture in which, along with this, a significant and sometimes even predominant place was occupied by sections with the structure of a typical papilloma of the skin (12 patients). It turned out that in the first group the average length of morbidity was 2.2 months and in the second -- 10 months. It can be assumed that with the course of time, condyloma acuminatum loses its specific histological features and becomes similar to the usual cutaneous papilloma.

On the basis of this, we think that the so-called condyloma acuminatum should be regarded as a true neoplasm and called a papilloma. In order to separate this group of papillomas of the penis (viral origin) from papillomas of the penis of a different etiology, we propose the term "viral papilloma" for condyloma acuminatum.

The combination in the same tumors of the features of condyloma acuminatum and papilloma and the building up with the course of time of the latter make it possible to take a new outlook on the precancerous nature of this disease. Among our patients with cancer of the penis, four of them during the course of several (from 3 to 10)years prior to the disease noted the presence of warty proliferations of the condyloma acuminatum type at the site of the subsequent development of cancer.

We will cite one of these observations.

Patient G, who was 32 years old, had condyloma acuminatum removed with a sharp surgical scoop twice in a period of 5 years. There were subsequent recurrences. During an examination, several protuberances were present on the dorsal surface of the coronary sulcus which ran together and were covered with a horny layer. From their bases a deep ulceration branched out and for the extent of the distal 2/3 of the penis there was a sharp infiltration with purulent fistulas (figure 2). An excision was made of the ulcerous tissue at the base

of the former condylomas with a rapid biopsy, exposing planocellular keratotic cancer. Three-fourths of the penis was amputated.

All that has been said makes it possible to assume that in individual patients, as a result of the prolonged existence or recurrence of viral papillomas of the penis, it is possible that it may become malignant; this represents facultative precancer.

When the patients had separate viral papillomas of the penis we used scissors to carry out their excision with electrocoagulation of the base of the lesion. Small papillomas were confined by one electrocoagulation. If there was disseminated papillomatosis of the prepuce, a circumcision was performed. Not in one of our patients was a recurrence observed (period of observation from 1 to 15 years). Cauterization with chemical substances is not recommended for viral papilloma of the penis, since they do not ensure the complete removal of the tumor. The realization of the same prophylactic measures for viral papilloma of the genetalia which are compulsory for other venereal diseases could have considerably lowered the frequency of this disease.

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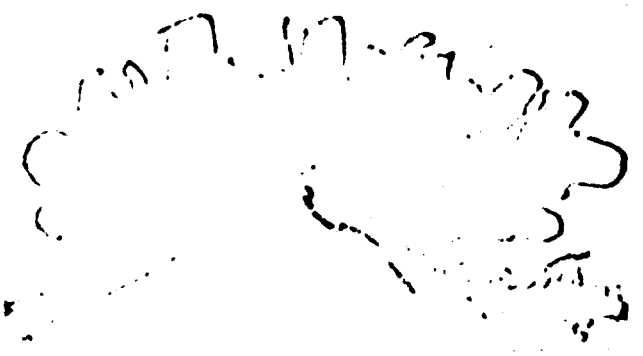

Figure 1. Typical histological picture of papilloma, obtained when investigating a so-called condyloma acuminatum of the penis (patient M, 23 years old).

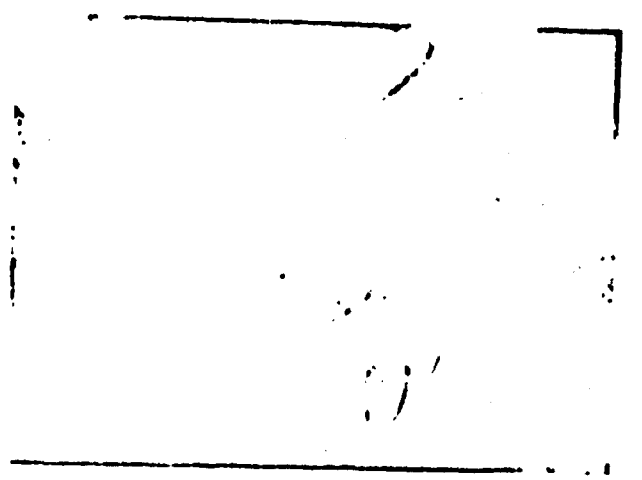

Figure 2. Viral papillomas (so-called condyloma acuminatum) in the area of the prepuce of the penis, exposed to keratosis, and a deep ulceration (cancer) at their base (patient G, 32 years old).