STUDIES ON GRANULOMA INGUINALE

VI. TWO CASES OF PERIANAL GRANULOMA INGUINALE IN MALE HOMOSEXUALS*†

BY

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The method of transmission of granuloma inguinale is uncertain but there is an increasing amount of data which indicate that *Donovania granulomatis*, the organism associated with the disease, has a faecal habitat. One link in the chain of evidence of faecal transmission is the occurrence of granuloma inguinale in male homosexuals, in whom the lesions may be confined to the perianal region.

Marmel (1958) presented ten cases of anal granuloma inguinale, of which nine of the patients were homosexuals. He also reviewed the literature and found that, of 48 patients with anal granuloma inguinale for which sufficient information was given, 44 admitted pederasty. Because the occurrence of anal lesions of granuloma inguinale in homosexuals is pertinent to our concept of the transmission of the disease, we now present two further cases of anal granuloma inguinale in homosexuals, with a discussion of the epidemiology of the disease in relation to these findings.

Case Reports

Case 1, a 40-year-old male, was born on an American Indian Reservation and remained there for the first 8 years of his life. His mother was Indian and, according to the patient, a prostitute, and his father was of mixed French-German ancestry and an alcoholic.

The patient was first seen at Cook County Hospital 5 years ago for "haemorrhoids". A few months later he was readmitted for an ulcerating perianal lesion. Carcinoma was suspected but when a biopsy was suggested, he absconded. Approximately one year later he was seen at the Cook County Hospital Clinic with a red serpiginous elevated granulomatous lesion which extended from the rectum to the left groin (Fig. 1). The older lesions appeared to have healed and looked scarred. He submitted to a biopsy only on the condition that a female attendant stood by for moral support. A diagnosis was established by the presence of Donovan bodies in tissue smears. A

FIG. 1.—Granulomatous lesion in Case 1.

total of 15 g. dihydrostreptomycin was given in a 15-day course of treatment, and 10 per cent. silver nitrate was also applied to the lesions daily. He was then discharged as cured.

In January, 1961, he was readmitted with new lesions also in the inguinal crease which appeared more anteriorly than the others, scarring from the previous involvement being seen posteriorly. A diagnosis of recurrent granuloma inguinale was made on the basis of a positive tissue smear for Donovan bodies and a positive complement-fixation titre for granuloma inguinale of 1:160. The complement-fixation test for lymphogranuloma venereum was also positive to a titre of 1:80. He was given 20 g. tetracycline over a period of 10 days and all the lesions resolved.

Comment.—The sexual history of the patient is interesting in that he categorically denies heterosexual

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contacts, and states that his sexual experiences have been exclusively homosexual and date from about the eighth year of life. Until the appearance of the anal lesions he habitually indulged in passive pederasty, and he also admits fellatio but maintains this was a minor sexual outlet, assuming importance only after the appearance of the anal lesions.

He has also revealed that he is uncertain about his racial status and prefers to have sexual relations with Negroes. He is currently employed as a dishwasher in a restaurant, and has maintained himself in the past by unskilled employment.

Case 2, a 25-year-old male Negro, is an admitted homosexual. He first noted a small sore in the perianal area 4 months before admission. The lesion slowly enlarged until it involved an area 7" × 4" on the intergluteal region of the right buttock. It consisted of a plaque with a reddish cobblestone-like surface and an elevated grey border which was continuous with an ulcerating linear lesion in the rectum (Fig. 2). There was no tenderness or pain associated with the lesion except in the rectal and perianal regions. The patient was a well-developed, well-nourished individual who had no other significant findings on physical examination. A barium enema examination failed to reveal any lesions which could not be seen by visual examination alone. Blood studies were normal and the serological tests for syphilis gave negative results. A biopsy from the lesion was reported as compatible with granuloma inguinale and a tissue smear from the lesion demonstrated Donovan bodies. The complement-fixation test for granuloma inguinale was positive to a titre of 1:640 and the complement-fixation test for lymphogranuloma venereum to 1:320.

He was treated with 4 g. streptomycin daily for 5 days and within 6 weeks the lesions had completely resolved.

Comment.—This patient was born in the state of Georgia where he had his first sexual experience with a male cousin at the age of 13. He denied ever having had heterosexual relations, stating that he wished he had been born a woman. When first seen at the clinic he was wearing a wedding ring given to him by his male companion. He is an intelligent, well-oriented individual who is trying to cope with his problem. He is currently employed as a clerical typist but has, in the past, worked as a female impersonator in nightclubs in various localities in the United States.

Discussion

The observation that the anal lesions of granuloma inguinale may be found in those who practise passive pederasty is not recent. De Souza Araujo (1917) reported that five of 59 cases of granuloma inguinale occurred in patients who admitted this practice. Vogel (1928) gave an interesting account of an epidemic of granuloma inguinale among the

FIG. 2.—Perianal lesion in Case 2.

Marandmois tribe of Dutch New Guinea, and equated the very high incidence of the disease (12 to 35 per cent. of the population) with the widespread practice of pederasty and the uninhibited sexual orgies indulged in by this tribe.

Marmell (1958) reported ten cases of anal granuloma inguinale, nine in admitted homosexuals, and listed 51 more cases from the literature, presented by twelve authors. He considered that these cases formed a link in the chain of evidence arguing for the venereal transmission of the disease.

We feel that an equally cogent interpretation of the presence of anal lesions in homosexuals with granuloma inguinale is that these lesions represent a direct infection of the host by a faecal organism. We also believe that the anal lesions in homosexuals represent a special case of the general method of transmission of granuloma inguinale differing from the rest only in site. We intend to discuss the

epidemiology of granuloma inguinale more fully in a subsequent paper, but wish to state here that we base our conclusions on the following data:

- (1) *Donovania granulomatis*, the supposed cultured Donovan body, shares common antigens with many members of the *Enterobacteriaceae* which have their habitat in the intestine.
- (2) The cultural characteristics necessary for the propagation of *Donovania* are such that they could be supplied by the intestinal environment.
- (3) A bacterium isolated from the faeces of a patient with granuloma inguinale is identical, in so far as we can determine, with strains of *Donovania* isolated from clinical lesions of the disease.
- (4) The location of the lesions in most cases of granuloma inguinale is such that faecal contamination could easily occur.
- (5) Perianal lesions are found in females as well as males.

We do not intend to state that *Donovania granulomatis* is necessarily the primary invader nor that the presence of the bacterium is the sole condition necessary for the production of the disease. Trauma, primary infection with other bacteria or viruses, or other factors may be necessary for the initiation of the disease.

If, to the contrary, we assume the venereal transmission of the disease, we must also assume that the habitat of the organism is in the lesion. This is

difficult to accept, primarily because we have only rarely found the sexual partner also involved. Various theories such as variation in virulence with age of lesion have been evolved to explain this finding, but we think that the faecal method of transmission is a more plausible one. In the next paper in this series we propose to discuss the epidemiology of the disease more fully.

Summary

Two cases of granuloma inguinale with only perianal lesions occurring in passive pederasts have been presented. Both individuals denied ever having had heterosexual relations. Both showed a positive smear for Donovan bodies as well as a positive complement-fixation test for granuloma inguinale.

REFERENCES

(See page 145)

Étude du granulome inguinal

VI. Deux homosexuels atteints de granulome inguinal péréal

RÉSUMÉ

On décrit deux pédérastes passifs atteints de granulome inguinal chez qui les lésions furent exclusivement péréales. Ils désavouèrent avoir jamais eu des relations hétérosexuelles. On trouva des corps de Donovan dans les frottis et les tests fixant le complément fut positifs pour le granulome inguinal dans les deux cas.