

ORIGINAL ARTICLE

Epidemiological Study of an Epidemic Outbreak of Syphilis in Palmas de Gran Canaria

J Vilar, L Dehesa, AJ Gómez-Duaso, J Bastida, P Rivero, J Domínguez-Silva, and G Carretero

Servicio de Dermatología, Hospital Universitario Dr. Negrín, Las Palmas de Gran Canaria, Spain

Abstract. *Introduction.* In the last times there has been an increased incidence of syphilis especially among homosexual men. In our department we have diagnosed 11 cases of early syphilis in 6 months during 2006, thus confirming an epidemic outbreak.

Material and methods. We carried out an epidemiological survey of patients with early syphilis.

Results. Syphilis was secondary in five cases and primary in six. All patients were men, 70% homosexual with a mean age of 38.1 years. All patients had or have had other sexually transmitted diseases (STD), six were HIV positive. Ninety percent of the patients admitted having had promiscuous sexual contacts in the past year, and among these, 50% never used protection, no protection was taken in cases of oral sex and only 25% reported protection during anal sex.

Conclusions. Currently, there is excessive slackening of protection practices as a method of STD prophylaxis, which leads to an increased number of cases. We consider relevant to insist in the use of barrier methods during oral sex as it is an important source of infection.

Key words: syphilis, epidemiology, homosexuality, human immunodeficiency virus, oral sex.

ESTUDIO EPIDEMIOLÓGICO DE UN BROTE EPIDÉMICO DE SÍFILIS EN LAS PALMAS DE GRAN CANARIA

Resumen. *Introducción.* En los últimos tiempos se ha detectado un aumento en los casos de sífilis, sobre todo en el colectivo de homosexuales masculinos. En nuestro Servicio hemos detectado 11 casos de sífilis precoz en 6 meses del 2006, constatando la presencia de un brote epidémico.

Material y métodos. Pacientes con sífilis temprana a los que se realizó una encuesta epidemiológica.

Resultados. Cinco casos eran de sífilis secundaria y 6 casos de primaria. Todos los pacientes eran varones, con un 70% de homosexuales. La edad media era de 38,1 años. Todos los pacientes tenían o habían tenido otras enfermedades de transmisión sexual (ETS), 6 eran positivos para el virus de la inmunodeficiencia humana (VIH+). El 90% reconocía haber tenido contactos sexuales promiscuos en el último año, y de ellos el 50% nunca utilizaba preservativo, no lo usaban en el sexo oral, y sólo el 25% lo empleaba en el sexo anal.

Conclusiones. Existe en el momento actual una relajación excesiva en la protección como método de prevención de ETS, lo que conlleva el incremento de casos. Nos parece importante insistir expresamente en la utilización de métodos de barrera en el sexo oral, dado que es una fuente importante de contagio.

Palabras clave: sífilis, epidemiología, homosexualidad, virus de la inmunodeficiencia humana, sexo oral.

Introduction

Syphilis is a disease that swept devastatingly through Europe in the 15th and 16th centuries. Effective treatment became possible after the appearance of arsenic compounds, and especially following the discovery of penicillin in 1929. The incidence of syphilis decreased after the appearance of AIDS in the 1980s. However, an increase in the number of cases of syphilis has recently been observed in several places, especially among homosexual men.¹⁻³

Correspondence:
Jaime Vilar Alejo.
Sección de Dermatología.
Hospital Universitario Dr. Negrín.
C/Barranco de la Ballena, s/n.
35020 Las Palmas de Gran Canaria. Spain
E-mail: Jaime.vilar@hotmail.com

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Our health service, which serves the northern part of the island of Gran Canaria, Spain, detected 11 cases of early syphilis from June 2006 to November 2006, confirming the presence of an epidemic outbreak. This motivated us to contact the patients and conduct an epidemiological study of the possible etiopathogenic factors underlying the resurgence of this disease.

Objective

The aim of this study was to identify the epidemiological factors underlying the appearance of an epidemic outbreak of syphilis in our area.

Material and Methods

The study included all patients with clinical and serological diagnosis of primary or secondary syphilis. They completed an epidemiological questionnaire containing 23 questions, most of which were closed questions. These were divided into 3 blocks: personal and socioeconomic details; whether the patient was in a stable relationship and, if so, the nature of that relationship; and the existence of multiple sexual partners and risk factors for contracting sexually transmitted diseases (STDs). All the patients agreed to collaborate in the study.

Results

Of the 11 cases detected, 5 patients had secondary syphilis and 6 primary syphilis confirmed by clinical and serological tests. The Table summarizes the most relevant data. All patients were Spanish men resident in Las Palmas de Gran Canaria, Spain, and 70% defined themselves as homosexual. The average age was 38.1 years (range, 22 to 49 years). Ninety percent were born in the Autonomous Community of the Canary Islands, 80% had completed secondary education, and 90% were employed. Unmarried patients formed 73% of the group and 27% were married to a partner of the opposite sex. A total of 45% reported having been in a stable relationship in the last 6 to 12 months and, notably, 100% reported current or previous associated STDs—6 patients were positive for human immunodeficiency virus (HIV), 4 had had gonorrhea, 3 pediculosis pubis and hepatitis B virus infection, 2 nonspecific urethritis, and 1 herpes simplex virus type 2. Forty percent of patients in stable partnerships never used condoms, 40% always used them, and the remainder sometimes used them. Some 90% reported having had multiple sexual contacts in the past year, most of which were homosexual contacts (70%). Seventy-three percent reported having had multiple sexual contacts in the 2 months prior to visiting the dermatologist; 50% of those patients never used condoms, 100% never used them during oral sex, and only 25% used them during anal sex. Seventy percent were both active and passive during sexual

Table. Information Relevant to the 11 Patients With Syphilis

Age, y	Sex	Sexual Orientation	Stable Partner	Previous STD	HIV+	No. of High-Risk Sexual Contacts (Last 2 Months)	Condom Use During Casual Sexual Contact	Condom Use For Oral Sex During Casual Sexual Contact	Lesion Type	Syphilis Stage
49	m	Homosexual	Yes	Yes	Yes	7	Sometimes	Never	Eruption	Secondary
38	m	Homosexual	No	Yes	Yes	5	Sometimes	Never	Penile chancre	Primary
43	m	Homosexual	No	Yes		2	Sometimes	Never	Eruption	Secondary
40	m	Homosexual	Yes	Yes		0			Penile chancre	Primary
23	m	Bisexual	Yes	Yes		10	Never	Never	Penile chancre	Primary
40	m	Heterosexual	No	Yes	Yes	0			Eruption	Secondary
46	m	Homosexual	Yes	Yes	Yes	9	Sometimes	Never	Eruption	Secondary
40	m	Homosexual	Yes	Yes	Yes	2	Sometimes	Never	Penile chancre	Primary
36	m	Homosexual	No	Yes	Yes	4	Always		Penile chancre	Primary
44	m	Bisexual	No	Yes		4	Never	Never	Scrotal chancre	Primary
22	m	Heterosexual	No	Yes		0			Eruption	Secondary

Abbreviations: m, man; STD, sexually transmitted disease; HIV, human immunodeficiency virus.

activity. Ten percent of the patients made contact with their sexual partners via the Internet, 10% in the street, 33% by telephone, and 50% in sauna dark rooms in areas frequented by homosexual men.

Discussion

Since 2000, there has been an increase in diagnosed cases of syphilis in Europe and America.

Immunosuppression in HIV-positive patients, prostitution, sex tourism, the use of the Internet for sporadic sexual encounters, and especially relaxation in condom use have been considered responsible for the increased number of cases of syphilis.

In 2002, 5979 cases were detected in the USA, whereas in 2004 there were 7394 cases, with a drastic increase among homosexual men.⁴

Approximately 60% of the cases of syphilis reported in northern Europe in 2002 involved male homosexuals.⁵

Although syphilis was almost completely eradicated from France by the beginning of the 1990s, there were 400 new cases in 2002; 96% were men, of which 84% were homosexual.

In Spain, the National Epidemiological Surveillance Network reported that cases of syphilis rose from 700 in 2001 to 917 in 2003 and then to 1339 in 2005, reversing the downward trend that had begun in the 1990s.⁶

In Madrid, the frequency of primary or secondary syphilis diagnosed among homosexual and bisexual men rose from 1.4% in 2002 to 3.1% in 2004.

In Catalonia, STD detection units reported a 36.6% increase in cases of syphilis between 2002 and 2003.⁷

In contrast to other regions, the number of cases in the Canary Islands decreased between 2002 (100), 2003 (87), and 2005 (68),⁶ but our subjective impression is that the number of cases correctly diagnosed represents a very small proportion of actual cases. We assume that most cases probably escape notice during primary care visits, or if correctly diagnosed, are not reported via the official disease notification process.

The present study confirmed the trend toward the resurgence of syphilis in Spain, particularly among the male homosexual community (Figure 1). The affected individuals were men mostly aged 30 to 40 years, 55% of whom were HIV positive, indicating a relationship between the two STDs.⁸ All new cases of syphilis corresponded to patients who currently had another STD or had one in the past, suggesting that previously infected patients had relaxed their attitudes concerning the possible risks involved in their sexual behavior (Figure 2). It is noteworthy that no patient used protection when practicing oral sex in the passive or active role, and that only 25% used a condom for anal penetration, even though 6 of the 11 patients knew they were HIV positive. In general, half of the interviewees reported never using any form of protection during casual sexual relations. Half the patients made contact with casual sexual partners in dark rooms in environments favored by homosexual men. This is a serious health concern, given that sexual relations are established with unknown people in these environments, usually without protection, and are thus a potential source of transmission of all types of STD.

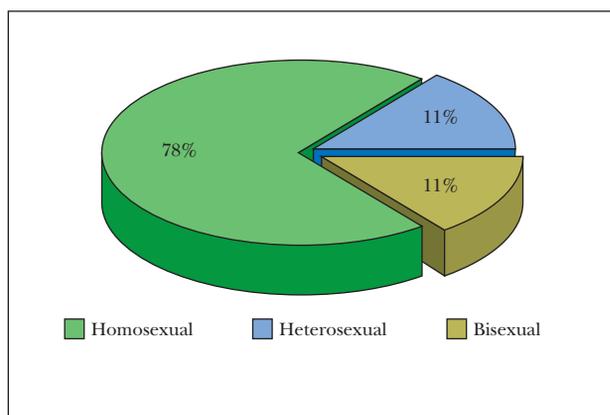


Figure 1. Sexual orientation of the patients.

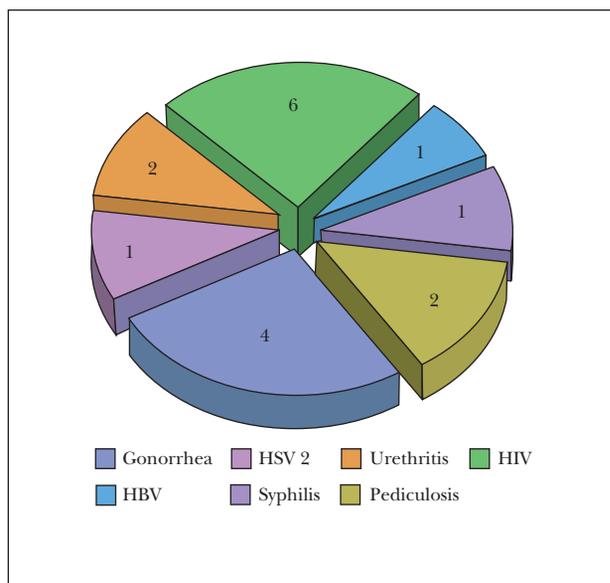


Figure 2. Presence of associated sexually transmitted diseases. Abbreviations: HSV-2, herpes simplex virus-2; HIV, human immunodeficiency virus; HBV, hepatitis B virus.

Conclusions

Although the use of such a small sample size in a study of a relatively frequent disease like syphilis means that the

results lack statistical significance, it seems important to report our findings as a further indication of an increase in the incidence of this infection in Spain. Our data suggest that the use of protection methods against STDs has decreased and, unless there is an appropriate response, this will involve an increase in cases of other STDs. We feel it is important to emphasize the specific use of barrier methods during oral sex, given that this is a route for transmission of various diseases.

We stress the need for STD prevention and control programs, paying particular attention to the male homosexual community, who are currently the group most affected by this disease. It would be appropriate to conduct campaigns in areas or meeting places (bars, clubs, etc) where high-risk sexual contacts are more common.

Conflicts of Interest

The authors declare no conflicts of interest.

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