Lymphogranuloma venereum: a hidden emerging problem, Barcelona, 2011

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From the beginning of 2007 until the end of 2011, 146 cases of lymphogranuloma venereum (LGV) were notified to the Barcelona Public Health Agency. Some 49% of them were diagnosed and reported in 2011, mainly in men who have sex with men. Almost half of them, 32 cases, were reported between July and September. This cluster represents the largest since 2004. This article presents the ongoing outbreak of LGV in Barcelona.

From 1 January 2007 to 30 December 2011, a total of 146 cases of lymphogranuloma venereum (LGV) were notified to the Barcelona Public Health Agency. Of those, 72 cases (49%) were diagnosed and reported in 2011. The figure shows the epidemic curve of the 139 cases who were residents of Barcelona. Of the 70 cases in 2011 who were resident in Barcelona, 31(44%) were reported between July and September.

Surveillance

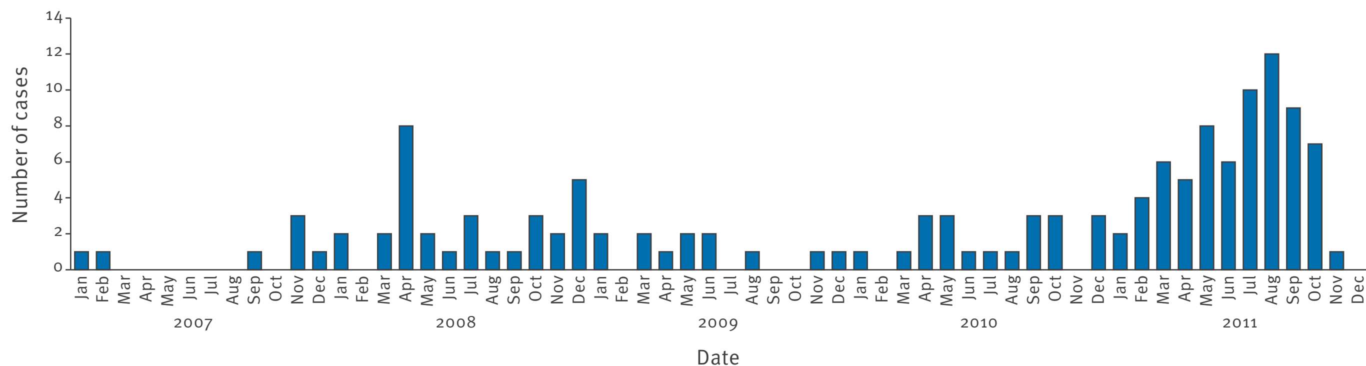
LGV surveillance in Barcelona is part of the sexually transmitted infections (STI) register, which has been active since 2007 and collects information about diagnoses in individuals tested in public or private facilities. Clinicians complete a standard data questionnaire to collect demographic, clinical and epidemiological key parameters, including date of consultation, sex, year of birth, sexual orientation, testing for human immunodeficiency virus (HIV), previous STIs, and sexual behaviour.

All data were collected by the Barcelona STI registry and were handled in a strictly confidential manner according to the requirements of the Spanish data protection Law [1].

Chlamydia trachomatis was detected by nucleic acid amplification tests. Positive samples were then confirmed with a second real-time multiplex polymerase

Figure

Cases of lymphogranuloma venereum by date of diagnosis, Barcelona residents, January 2007–December 2011 (n=139)



chain reaction that allows to differentiate serovars A-K from the L serovars [2].

Epidemiological data

After two decades without LGV notifications, a new case was diagnosed in Barcelona in 2004. It was a homosexual man who was a sexual partner of a case diagnosed in Amsterdam [3]. No further cases were detected in Barcelona until September 2007.

The median number of cases reported per month increased from two in 2010 to six in 2011. A comparison of data from the period 2007–2010 with the year 2011 showed that patients in 2011 were younger (p=0.01) and more of them had documented HIV infection (Table).

Of the 70 cases of LGV reported in 2011 that were resident in Barcelona, all were men who have sex with men (MSM), at least 66 were HIV-positive (HIV status was unknown in two cases), and 39 cases were born in Spain, 17 in South America, 12 in other countries of Western Europe and North America and one in another region. In four cases, HIV diagnosis was known at the time of the LGV diagnosis, and 22 of the cases were diagnosed with another STI in the previous 12 months. *C. trachomatis* was detected in the anal or perianal region in 67 cases, in the genital area in two cases, and for one case no data was available. Regarding the presence of symptoms, 64 cases had at least one symptom, two cases were asymptomatic, and in three cases this information was not recorded.

The time between the onset of the symptoms and the diagnosis ranged from two to 530 days, with a median of 29 days.

The mean number of new sexual partners in the 12 months before diagnosis was 26 (range: 1–100) for the 31 cases in 2011 for whom this information was obtained. Only four cases reported using a condom in the most recent sexual relationship, and three cases engaged in casual sexual intercourse while abroad. For the 27 patients whose information on location of sexual activity was available, 10 reported having had numerous sexual partners, at home or at private parties. The majority of these contacts had been established anonymously by Internet and some of them by mobile applications based on geolocation.

Control measures

To deal with the increase in LGV cases, control measures were implemented in Barcelona from September 2011: alerting STI clinics, HIV specialists and hospitals of the existence of the current outbreak of LGV; active case finding in clinical care units and microbiology laboratories; contact with patients to monitor treatment and implement partner notification; preventive

Table

Epidemiological and clinical characteristic of lymphogranuloma venereum cases, Barcelona residents, comparison of 2007–2010 with 2011 (n=139)

		2007–2010 n=69 Number (%)[a]	2011 n=70 Number (%)[a]	p value
Median age (interquartile range)		38 (34–43)	35 (29–41)	0.01
Country of birth: Spain		40 (58)	39 (56)	0.78
Sexual behaviour	MSM	64 (93)	70 (100)	
	HTS	1 (1)		
	Unknown	4 (6)		
HIV-infected	Yes	55 (80)	66 (94)	0.04
	No	8 (12)	2 (3)	
	Unknown	6 (9)	2 (3)	
Another STI diagnosed in the previous 12 months	Yes	26 (38)	22 (31)	
	No	29 (42)	23 (33)	
	Unknown	14 (20)	25 (36)	
Use of condom the last time they had sex	Yes	8 (12)	4 (6)	
	No	46 (67)	48 (69)	
	Unknown	15 (22)	18 (26)	
Contact tracing	Yes	29 (42)	42 (60)	
	No	18 (26)	9 (13)	
	Unknown	22 (32)	19 (27)	
Median of days between symptoms and diagnosis (interquartile range)		35 (14–90)	29 (13–45)	0.68
Proctitis	Yes	62 (90)	67 (96)	0.17
	No	7 (10)	3 (4)	

HIV: human immunodeficiency virus; MSM: men who have sex with men; HTS: heterosexual; STI: sexually transmitted infection.

[a] All cases were male.

activities targeting risk groups with the collaboration of non-governmental organisations.

Discussion and conclusion

This cluster represents the largest cluster of LGV cases since 2004. A previous outbreak in Barcelona, reported in 2008, had 18 cases in the course of seven months [4].

LGV is an emerging sexually transmitted infection in Europe and in North America. Occasionally, clusters of cases suggest ongoing low-level transmission in these areas [5]. However, since the first outbreak was reported in the Netherlands in 2003, new cases have been reported regularly in various European countries [6-12]. Since 2010, the United Kingdom reported an increase in cases of LGV to over 550 cases, most of them in London. The Netherlands reported 66 cases in 2010 [13,14].

Certain characteristics of LGV support the concept that it is a hidden disease: it affects vulnerable groups, is often self-treated, and misdiagnosis or delayed diagnosis is common. Early diagnosis and treatment of cases are very important because the period of communicability can vary from weeks to years, as long as active lesions are present [15].

As in other parts of Europe, the significant increase in cases of LGV in Barcelona in the last year affected the MSM population, most of them HIV-infected. The infrequent use of condoms in the last years and the high proportion of anonymous sexual contacts make this group active transmitters of STIs, including HIV. Clinicians, epidemiologists and those most susceptible to infection such as MSM, should be aware that this disease is still present in European countries, and that it could manifest in a gradual increase in cases or as outbreaks. Existing efforts to promote awareness and prevention of LGV, especially among HIV-infected patients and among physicians, should be strengthened. New technologies (e.g. Intenet, global positioning system) favour risk practices, but also provide opportunities for new prevention strategies. These new media could be used to disseminate information about preventive measures and, in the case of applications using georeferences, to facilitate the identification of contacts and tracing of patients with LGV who would benefit from timely notification. Some publications have welcomed this initiative aimed at groups of MSM who seek sexual contacts through websites [16,17]. Other experiences in STI centres, such as human sexuality seminars for MSM have proven effective in reducing risk practices in this group [18].

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