EPIDEMIOLOGY SECTION

CONNECTICUT EPIDEMIOLOGIST

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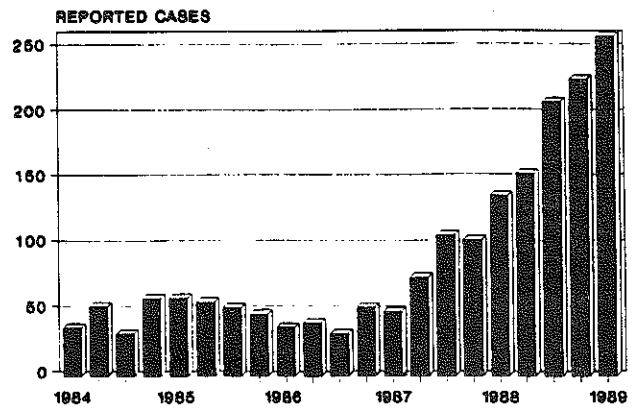
SYPHILIS RESURGENCE

For the second consecutive year, reported cases of lesion syphilis (primary and secondary stages) have more than doubled in Connecticut. Statewide, 724 cases of lesion syphilis were reported during 1988, more than double the 334 reported in 1987 and more than four times greater than the 161 reported in 1986 (Figure 1). Nationally, the number of lesion syphilis cases reported in 1988 was 50% greater than in 1986, with several states, including Connecticut, experiencing disproportionate increases.

Connecticut's syphilis problem has occurred throughout much of the State, with the greatest increases centering around the larger urban areas, specifically Hartford, New Haven, Bridgeport, and Stamford. These four cities accounted for 75% of reported syphilis cases during 1988 (Table 1). The increase has been particularly marked among blacks, although case increases among whites and Hispanics have also been significant (Table 2). All of the increase has occurred among heterosexuals; male cases that admitted having an exposure to another male decreased from 32% in 1986 to 4% in 1988.

Figure 1

CONNECTICUT: REPORTED LESION SYPHILIS
BY QUARTER, 1984 - 1989



SOURCE: Ct. STD Control Program

The reasons for such a dramatic increase in syphilis here and in other areas of the U.S. appear to be related to an expanding drug abuse problem and associated prostitution. Approximately half of the State's syphilis cases in the second half of 1988 have involved cocaine or heroin abusers, prostitutes, or sexual partners of prostitutes (Table 3). Cocaine abusers with syphilis have more often inhaled or snorted cocaine than injected it.

Comment

There are two major concerns over the increase in infectious syphilis. First, with nearly all of the current cases being seen among heterosexuals, an increase in congenitally acquired syphilis is likely to occur. Of note, the number of pregnant women identified as having early syphilis through prenatal screening increased steadily over the past three years.

TABLE 1. P & S Syphilis By Selected Cities, Connecticut, 1986-1988

City	1986	1987	1988	ANNUAL % CHANGE 1987	1988
Hartford	90	95	229	+ 90%	+ 141%
New Haven	20	37	158	+ 85%	+ 327%
Bridgeport	25	61	103	+ 144%	+ 69%
Stamford	8	12	50	+ 50%	+ 317%
Norwalk	8	6	17	- 25%	+ 183%
Danbury	0	3	8	----	+ 167%
Waterbury	5	21	17	+ 320%	- 19%
Other Towns	29	67	74	+ 131%	+ 10%
State Total	161	334	724	+ 107%	+ 117%

TABLE 2. P & S Syphilis by Race/Ethnicity, Connecticut, 1987-1988

	1987	1988	% Change
White	91	151	+ 65%
Black	165	470	+ 185%
Hispanic	76	101	+ 33%
Other/Unspec.	2	2	NC

Although the percentage of women who were found infected through prenatal screening has remained nearly the same during these years (12% in 1986 and 9% in both 1987 and 1988), the absolute number of cases has been increasing substantially, from 14 in 1986, to 19 in 1987 and 44 in 1988.

Second, genital ulcerations such as those typically seen in primary and secondary syphilis have been associated with higher rates of human immunodeficiency virus (HIV) transmission. This means that increases in lesion syphilis may result in increases in sexually transmitted HIV infections, particularly if syphilis continues to be prevalent among prostitutes and drug users.

Recommendations

The early identification and treatment of infected patients and their sexual partners is central to the control of syphilis. Health providers are requested to adopt the following syphilis screening recommendations:

A SEROLOGICAL EVALUATION FOR SYPHILIS SHOULD BE PERFORMED ON THE FOLLOWING PATIENTS REGARDLESS OF THE REASON FOR THEIR MEDICAL VISIT:

Any patient presenting with symptoms suggestive of early syphilis. A dark-field microscopy test should also be considered, as serology may be negative in primary syphilis. There is also some evidence that the serology may be negative during the secondary stage in some patients who are immune deficient;

Any patient presenting with symptoms of other sexually transmitted disease, including gonorrhea, chlamydia, chancroid, herpes, and condyloma;

Any patient with recent exposure to syphilis or any other sexually transmitted disease. Appropriate empiric antimicrobial therapy should also be initiated immediately in these cases before the opportunity to prevent infectious syphilis is lost;

TABLE 3. P & S Syphilis by Sex and Selected Characteristics, Connecticut, July-December 1988

Sex	Characteristic	No. with Characteristic	% of Total
Females (N=280)	Drug Use	113	40%
	Prostitution	52	19%
Heterosexual Males (N=281)	Drug Use	62	22%
	Prostitute Contact	86	31%

Any patient with a recent history of cocaine/heroin use, regardless of the route by which either is used;

Any patient with a recent history of prostitution or sexual exposure to a prostitute;

Pregnant women. As required by Connecticut law, testing should be performed twice during pregnancy, first on initial prenatal visit, the second during the final trimester. It is recommended that the second test be performed at the 28th week. Pregnant women who have not been receiving prenatal care and who are seen by urgent/emergency care providers should be tested at this time. A serology at birth should be considered if no prenatal serologies were performed or if the patient has particular risk factors. A test at birth, however, should be in addition to, not in lieu of, the required third trimester test.

Health providers serving patients residing in high incidence areas of Connecticut, particularly Hartford, New Haven, Bridgeport and Stamford, should also consider routinely testing the following patients in addition to those fitting the above descriptions:

All primary medical care, emergency room, outpatient and family planning patients, ages 15-44, who give a history of having either more than one sexual partner or a new partner during the six months previous to their examinations. Health providers who initiate this recommendation should evaluate this activity every six months to determine its continued value for identifying new cases.

DIAGNOSIS OF SYPHILIS IN HIV-INFECTED PATIENTS

Most HIV-infected patients appear to have a normal serologic response to Treponema pallidum infection. However, in some HIV-infected patients with biopsy-confirmed secondary syphilis, both nontreponemal and treponemal tests for syphilis are negative. In addition, some patients infected with both T. pallidum and HIV have had unusually high titers on nontreponemal serologic tests for syphilis, possibly because of HIV-related polyclonal B-cell stimulation. The frequency of unusual clinical and laboratory manifestations of syphilis in patients coinfected with HIV is unknown.

Recommendations

1. Persons with HIV infection acquired through sexual contact or intravenous (IV) drug abuse should be tested for syphilis. These persons have a relatively high probability of having latent syphilis infection.

2. Persons with syphilis should be offered counseling and testing for HIV infection.

3. When clinical findings suggest syphilis is present, but serologic tests are negative, other tests should be used to determine if syphilis is present. These tests include dark-field microscopy and direct fluorescent antibody for T. pallidum (DFA-TP) staining of lesion exudate and examination of biopsy tissue using DFA-TP or Steiner stain.

4. Laboratories should titrate nontreponemal tests to a final endpoint, rather than reporting results as greater than an arbitrary cut-off (e.g., > 1:512). Specific results permit more accurate determination of response to therapy and also help identify unusual serologic responses to syphilis.

5. Neurosyphilis should be considered in the differential diagnosis of neurologic disease in HIV-infected persons.

6. Consultation should be obtained to evaluate unusual serologic test results in patients suspected of having syphilis or in those being followed for response to treatment.

Reporting Procedure

Cases of lesion syphilis should be reported immediately to the State STD Control Program so disease intervention activities can be implemented immediately. Health professionals reporting cases or in need of further information on syphilis and other STDs may call the STD Control Program at 566-4492.

Counseling of Patients

All patients with syphilis and others fitting a high risk category should also receive counseling regarding HIV transmission and prevention, and be offered HIV antibody testing. If assistance with offering HIV antibody counseling and testing is desired, please call your local health department or the national AIDS Hotline, 1-800-342-2437.

References for Treatment Recommendations

1. CDC. 1985 STD treatment guidelines. MMWR 1985;34(suppl 4S).

2. CDC. Policy guidelines for the prevention and control of congenital syphilis. MMWR 1988;37(suppl 1S).

3. CDC. Recommendations for diagnosing and treating syphilis in HIV-infected patients. MMWR 1988;37:600-3.

Copies of these references can be obtained by calling the State STD Control Program at 566-4492

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