

AIDS-Induced Decline of the Incidence of Syphilis in Denmark

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The incidence rate of acquired syphilis per 100 000 total population in Denmark increased by 70% from 6.8 in 1978 to 11.6 in 1982. In 1984 this incidence had decreased by 61.2% to 4.5. The fluctuation of the number of acquired syphilis predominated in the male population with an increase of 71.8% during the five year period 1978-1982 and a decrease of 63.2% during the years 1983 and 1984. In 1978, the incidence of acquired syphilis in males was 11.3 per 100 000 total population increasing to 19.5 in 1982, decreasing to 7.2 in 1984. The decreasing number of acquired syphilis cases during the past two years are correlated to a lower number of sexual contacts among homosexual men because of fear of AIDS. *Key words: Syphilis; Decline of incidence; Fear of AIDS.* (Received May 6, 1985.)

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The incidence of syphilis is determined by social and demographic variables (1, 2, 3, 4). Acquired syphilis has been diagnosed with increasing incidence in Denmark during the past decade. However, recently a pronounced decline has replaced this increase and, during the same period of time, acquired immune deficiency syndrome (AIDS) has appeared in Denmark. Below, these recent variations of the incidence of acquired syphilis will be shown, and a correlation between the decrease of the incidence of syphilis and the appearance of AIDS will be discussed.

MATERIAL AND METHODS

The incidence rate of acquired syphilis per 100 000 of the total Danish population as well as the incidence rate of acquired syphilis per 100 000 of the male and female populations during the years 1978-1984, both included, are calculated from the total annual numbers of new diagnosed cases registered in both sexes (5). The incidence for the total population and for the males and females is graphically illustrated in Fig. 1.

RESULTS

The incidence of acquired syphilis per 100 000 of the total population and of the male and the female populations during the years 1978-1984, both included, appear from Fig. 1. During the five year period from 1978 to 1982, the incidence of syphilis for the total population increased by 70% from 6.8 to 11.6 per 100 000. During the period 1983-1984 the incidence declined by 61.2% to 4.5 in 1984. For 1980, the incidence of acquired syphilis per 100 000 females reached a maximum of 3.7 and then, in 1984, an irregular decline to a minimum of 1.8 was registered. The largest fluctuation of incidences was noted in males. The incidences increased from 11.3 in 1978 to 19.5 in 1982, an increase of 71.8% during a five year period. However, two years later, in 1984, the incidence had fallen by 63.2% to 7.2.

DISCUSSION

Homosexual men are a high-risk group of sexually transmitted diseases. The high incidence of syphilis in this group determines the predominance of the disease in males (6, 7,

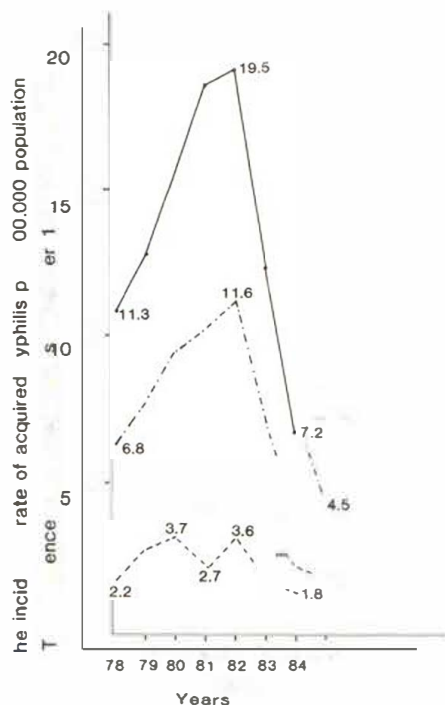


Fig. 1. Variations of the incidence rate of acquired syphilis per 100 000 population in Denmark during the years 1978–1984. —, males; - - -, total population; · · · ·, females.

8, 9, 10). In Denmark like in other western countries, the incidence of syphilis increased during the sixties and seventies. The incidence of 19.5 per 100 000 total population in 1982 is the highest incidence since the introduction of penicillin in the treatment of syphilis in the late forties. The decrease of the incidence of syphilis in the total population by 61.2% during the two years 1983–1984 is remarkable, and hardly accidental. In 1981, the first two cases of AIDS were reported from Denmark and, since then, the number of new cases has increased steadily (11). Information given by homosexual men consulting V.D. clinics indicates that among the gay population there is an increasingly restrictive attitude to promiscuous relations because of fear of being infected by AIDS. Most likely, this attitude determines the decreasing incidence of acquired syphilis in men. In females, the incidence also dropped during 1983–1984. Fulford reported that bisexual men had more casual male partners than homosexual men (3). Thus, promiscuous bisexual men may transmit syphilis from homosexual males to females. When the incidence of syphilis in homosexual men decreased, the incidence in females consequently declined, too.

Up to April 1985 no other studies have been carried out on the nature of the influence of AIDS on the incidence of syphilis. Probably, the phenomenon discussed in the present study is not an exclusive Danish phenomenon, but may most likely be expected in other nations in which AIDS occurs.

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