Multiple sclerosis in Oslo, Norway: prevalence on 1 January 1995 and incidence over a 25-year period


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The Oslo Multiple Sclerosis (MS) Registry was established in 1990, and this is the first report on the prevalence and incidence of MS in the city of Oslo, Norway. The prevalence rate of definite MS on 1 January 1995 was 120.4/105. Inclusion of patients of native Norwegian ancestry only and exclusion of non-Norwegian immigrants yielded a prevalence rate of 136.0/105. A similar prevalence rate (136.5/105) was found when patients and immigrants from the other Nordic countries (Finland, Sweden, Denmark) were included. Segregation of the native Norwegian patients according to the counties where they were born showed no significant differences except for a disproportionate increase of patients born in the inland county of Oppland. A total of 794 cases were resident in Oslo at the time of a diagnosis of definite MS in the period 1972-99. The crude annual incidence rate for each 5-year period, between 1972 and 1996, increased significantly from 3.7/105 in the 1972-76 to 8.7/105 in the 1992-96 period. The increase was more marked in relapsing-remitting (RR) than in primary progressive disease and in female cases.

Introduction

A nation-wide survey of the prevalence of multiple sclerosis (MS) in Norway in 1948 (Swank et al., 1952) and a study based on mortality data from 1951 to 1965 (Westlund, 1970) suggested that the south-eastern part of Norway is the area with the highest MS prevalence in the country. Surveys of five out of a total of 19 counties (see Fig. 1) in Norway have since been reported. Studies of the county of Vestfold (on the west side of the Oslo Fjord) showed a prevalence rate of 61.6/105 in 1963 (Oftedal, 1965) and 86.4/105 in 1983 (Edland et al., 1996). In western Norway, the prevalence rate in Hordaland County was approximately 20/105 in 1960 (Presthus, 1960) and 59.8/105 in 1983 (Larsen et al., 1984a), and in Møre-Romsdal County it was 25.7/105 in 1961 (Presthus, 1966) and 75.4/105 in 1983 (Midgard et al., 1991). In northern Norway, the combined prevalence rate in Troms and Finnmark counties was 20.6/105 in 1973 (DeGraaf, 1974), 31.5/105 in 1983 (Grønning and Mellgren, 1985) and 73.0/105 in 1993 (Grønlie et al., 2000). The prevalence rate in Gothenburg in Sweden (300 km south of Oslo, on the east coast of the Skagerrak) was 96/105 in 1988 (Svenningsson et al., 1990), and in Denmark 112/105 in 1990 (Koch-Henriksen, 1999).

In the Norwegian studies, an increase in incidence from 1953 to 1977 was concluded to have taken place in the county of Hordaland (Larsen et al., 1984b), whereas fluctuating incidence patterns were reported in Vestfold (Edland et al., 1996), Møre-Romsdal (Midgard et al., 1991) and Troms and Finnmark (Grønning and Mellgren, 1985). Oslo is at once both the capital and one of the 19 counties of Norway with 11.1% of the country's population. The population of Oslo was 483 401 on January 1 1995 (Statistisk årbok, 1996). Since about 1970, the immigration of people of non-European (mainly African and Asian) ethnic origin