High incidence of diabetes-related lower extremity amputations in Gran Canaria, Canary Islands (Spain)

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Aim: To establish the rate of diabetes-related lower extremity amputations (LEA) in the south health area of Gran Canaria (Canary Islands, Spain). Methods: The target population of this study is the south health area of Gran Canaria. According to the census of the Canarian Health Service, the total population of this area is 352,217 people. People with ages below 20 years old were excluded from this study and the population used for the analysis was 248,771 people (124,133 males and 124,638 females). The global prevalence of diabetes mellitus used in this study was 13.2%. LEA was defined as the complete loss in the transverse anatomical plane of any part of the lower limb. Traumatic and cancer-related LEAs were not included in this study. Data for amputation was retrospectively collected through discharge records from the Vascular Surgery service and analysis of discharge records from the central Unit of payment of the Canarian Health Service from 1st July 2001 to 1st July 2002. The two sources of collected data were independent. Results: The overall incidence rate of LEAs in people above 20 years of age was 57 per 100,000 (95% CI, 47.6-66.4) per year. The incidence rate was 319.7 (95 % CI, 258.6-380.8) in the diabetic subjects compared with 17.1 per 100,000 (95 % CI, 11.6-22.6) per year in their non-diabetic counterparts. Thus, the relative risk of LEA in the diabetic population was 18.6 (95% CI, 12.8-27.1). The incidence of major amputations in diabetic patients was 176.6 per 100,000 (95 % CI, 131.2-222) per year. Conclusions: The incidence of both diabetic and nondiabetic LEAs is the highest reported in Spain. Our results show a total relative risk of LEA of 18.6 but in people aged 45-64 it was 32.8. In the Spanish studies, relative risk was 21.6 and 28. Non-diabetic population underwent more amputations in Gran Canaria when compared with the other Spanish studies and for this reason relative risk is lower for both total and major amputations. This data may reflect a higher prevalence of cardiovascular risk factor in non-diabetic population in Canary Islands. We believe that it is necessary to implement programmes for the prevention and aggressive management of foot complications in diabetic population.

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