

Ethnic and province specific prevalence of diabetes mellitus in Sri Lanka - Sri Lanka diabetes and cardiovascular study

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Abstract :

Background: The prevalence of diabetes among Sri Lankan adults has been recently reported as 10.3%. We aimed to determine the prevalence of diabetes and the underlying risk factors among different ethnic groups and provinces.

Methods: 5000 people above 18 years of age were selected by a multistage random cluster sampling technique. A structured questionnaire was used to record interview and anthropometric data. Fasting and 2 hour post OGTT plasma glucose were estimated. New cases of diabetes were diagnosed according to the WHO criteria. Data were analysed using STATA software.

Results: Altogether 4532 subjects participated (response 91%); males 40%; mean age 46years (SD 15). The crude prevalence of diabetes was 12.6%. The prevalence of diabetes was highest in the Western province (18.8%) followed by Central (12.6%), Southern (12.2%) Sabaragamuwa (11.5%), North- Western (10.0%) and Uva (6.8%) provinces ($p < 0.0001$). Sri Lankan Tamils (22.1%) had the highest prevalence of diabetes followed by the Muslims (21.4%), Sinhalese (11.9%) and Plantation sector Tamils (3.2%) (< 0.022). Ethnicity was not significantly associated with diabetes in multivariate regression analysis corrected for obesity and physical inactivity but the province of residence remained significantly associated. In different provinces and ethnic groups, diabetes prevalence positively correlated with obesity indices and income but negatively correlated with level of physical activity.

Conclusion: There is a marked variation in the prevalence of diabetes in different provinces and ethnic groups in Sri Lanka. These patterns underlie the differences in obesity, income and physical activity and can be used for targeted primary preventive strategies.