

EDITORIAL

Recent contribution on Epidemiology of Diabetes

Epidemiology is the study of disease and its distribution in defined population. The hall mark of epidemiology is that it is concerned with both identifying individuals who have the disease under study and enumerate those who don't. In this way it is possible to calculate rates of occurrence of disease and to estimate whether the disease is commoner in people with particular characteristics than others, whether its commoner in one place than another and whether its occurrence has changed over time.

In late 19th and early 20th century causative agents or reservoirs for infectious diseases were traceable based on epidemiological studies. Later contributions of epidemiology relate to noncommunicable diseases. Thus relationship of smoking with lung cancer, dietary fiber and colon cancer, oral contraceptives and thrombophlebitis, saturated fats and ischemic heart disease were established.

Of recent, diabetes has also come under the preview of epidemiology. The aim of this approach has been to identify factors which are casually associated with occurrence of diabetes and where intervention could prevent this disease.

Attention needs to be drawn to some recent studies in a few selected populations where diabetes, especially NIDDM (this being at least 10 times more than IDDM) seems to be now presenting in epidemic proportions. Earliest were the reports by USPHS reporting prevalence of diabetes amongst Pima Indians at 50%. This was followed by a study in the West Pacific amongst Nauruans where 35% prevalence of diabetes amongst the Micronesians was reported. Malta and Mauritius followed with prevalence rate of 15-20%.

The figures amongst migrant Asian Indian in South Africa, UK, Far East and Fiji, have as well been astoundingly high, that is 10-15%. Semitic ethnicity may be the fore-runner for NIDDM diabetes, however so far there have been no discreet molecular genetic marker identified to prove this.

In regard to the Type II diabetes and NIDDM, environmental factors seem to play the crucial role in making glucose intolerance overt. This is especially evident amongst population groups that have moved from one habitat to another, but with a totally different ecological background and a new life style. This has been variedly designated as "Westernization", or "Modernization".

Analysis of Indian data inclusive of studies on high altitude, rural urban setting, is indicative of increasing prevalence with change to lower altitudes and locale in reference to density of population. The environmental factors would seem to be multifaceted, remain assumed as open ended in the context of the scope of presently available information.

The issue of the Bulletin provides a few state of art' articles on this subject and emphasizes the oncoming over burden of diabetes in our population in the near future. The health planners engaged in "Health for All" by 2000 A.D., may plan intervention by "inter health" program (as per other non communicable diseases to provide safeguards to limit morbidity due to glucose intolerance as well.

-M.M.S. Ahuja