SUMMARY OF PROCEEDINGS

THE FIFTH NATIONAL SYMPOSIUM ON DIABETES, CORONARY HEARTH DISEASE AND RENAL DISEASE IN INDO-ASIAN PEOPLES, UNIVERSITY OF LEICESTER, NOVEMBER 29, 1997

Ms. V. Bahl (Public Health Authority) presented standardized mortality data due to ischaemic heart disease (IHD) (1970-90) in U.K. In South Asians, the IHD mortality is higher than Europeans and is increasing. Comparison between Indian/Pakistan and Bangladeshi residents showed a SMR of 70.5, 95.5 and 102.4 (UK being 59.3%).

Diabetes was higher in the Asian groups – Indians 313. Pakistanis 367, Bangladeshis 739, UK being 100.

Besides inequality in the agenda for health policies, issues involved in such communities consisted of a scarcity of information and awareness, professional understanding and the recognition of heart disease and diabetes.

Following the presentation, interesting discussion followed indicating the heterogeneity in the ethnic groups, nutritional disparity of vegetarians vs. non-vegetarians, rates of smoking and cohesive vs. fragmented characteristics amongst the communities.

N.G. Forouhi (London School of Hygiene and Tropical Medicine) presented results of a prospective study on an analysis of risk factors, especially features of insulin resistance amongst South Asian men. This was a follow-up of 1420 South Asian men (age 40 – 69 years) initially examined in 1988-90 with a median follow-up of 7.7 years with 37 deaths due to I.H.D. (for comparison 1515 European with 24 deaths due to I.H.D.) Age adjusted RR death in South Asian vs. European men from I.H.D. was 2.0 (95%, Cl 1.2 – 3.3, P = 0.010). After adjusting for smoking and cholesterol RR increased to 3.1 (95% Cl - 1.7 – 5.6, P < 0.001). Adjusting for glucose intolerance reduced RR to 2.3 (95% Cl 1.2 – 4.3, P = 0.008). Further adjustment for hypertension reduced the RR to 2.2 (95% Cl 1.2 – 4.1, P = 0.012) but adjustment for insulin level (fasting or 2 hr), W/H ratio, BMI and triglyceride (fasting or 2 hr) did not make further contribution to the modes. Asian men have two fold risk of IHD mortality compared to European men.

Social factors and the duration of education, had inverse relation with IHD mortality in S. Asian men, whereas unemployment was associated with an increased risk of IHD mortality.

The next presentation of Ms. R. A. Webster (a clinical nurse specialist) dealt with health care needs for the Asian I.H.D. patients. Her interviews brought out special features in the Gujarati Community consisting of protracted sick role, lack of plan for the future and expectation that they would not get much better, accepting few changes in life style and a greater faith in the theory of "karma" (Fatalistic attitude). A need for good guidance for rehabilitation was brought out. Utilisation of professionals, including nurses for home visits was emphasized.

Dr. G.J.G. Davey (London School of Hygiene of Tropical Medicine) presented data on the effect of exercise and omega 3 supplementation on insulin resistance in South Asians and Europeans with a normal glucose tolerance. There was a 12 week exercise program (30 min per week at 65 – 75%, VO_2 max). Another group was followed on Omega 3 fatty acid diet 3 g/day or placebo capsules. Exercise improved insulin sensitivity by 40% amongst those in whom IV-GTT was performed within 24 hours, of the final exercise session. Omega 3 fatty acids at a dose of 3 g/day did not appear to improve insulin sensitivity in the insulin resistant South Asians or Europeans.

Ms. B.A. Long (Diabetes Information Coordinator – Blackburn) presented data on glycaemic control in Asian patients). The Asian patients were significantly younger compared to white diabetics.

Mean HbA_{1c} in the two groups over a period of two years was not significantly dissimilar, the main difference being in the percentage of patients showing excellent and good control. 65% of the white population showed excellent/good control compared to 52% of the Asian patients. Moderate control was equal while poor control was observed in 19% of Asian patients compared to 12% of white patients.

Prof. G. Alberti (President, Royal College of Physicians, U.K.) discussed diabetes in the Immigrant Indo-Asian people. He spoke about the new classification of diabetes by the WHO and brought out the fact that the global prevalence rate of diabetes is going to be doubled (250 million) by the year 2010.

He presented the Indian data (Dr. Tripathy's work) and the recent Pakistani data (Dr. Shera0. He dealt

with the effect of immigration within the country and between countries and highlighted his studies on diabetes especially in the Indians in Mauritius with a prevalence of 12% while in East Africa (Darasalam) it was 8.2%. Prof. Albert referred to genetic influences, along with insulin, resistance, dyslipidaemia and physical inactivity as the major factor in the Asian Indians regarding the high prevalence rates. He presented data on intervention studies especially with reference to life style changes and made a strong case for the approach to be kept very simple and consist of: EAT LESS AND EXERCISE MORE.

The next session included a case presentation of myocardial infarction, health care needs, beliefs and problems relating to coping with the recovery stage.

Cultural beliefs on semantics of foods being "strong or weak" based on ethnographic analysis were presented by Dr. Chowdhary (Whittington Hosp., London).

Dr. B.M. Kaufman, (Central Middlesex Hospital, London) presented data on intralipid clearance in Indian subjects compared to Western subjects.

Males (K2)		Females (K2)	
Indian (n = 17) 0.027 ± 0.01 min^{-1}	Western 0.056 ± 0.056 min^{-1}	Indian (n = 18) 0.044 ± 0.016 min^{-1}	Western 0.074 ± 0.018 min^{-1}

Dietary modification by carbohydrate or caloric restriction increased intralipid clearance overall by a value of 20%.

Alvi N.S. (Brimingham Children Hospital) presented data on the prevalence of diabetes in Asian Children 1987 to 1996. Since 1991, an increase was observed in the city, (9.3/10,000 to 18.3/10,000) a doubling of the figures in last five years. Of 29% children of less than 5 years of age at diagnosis of diabetes more Asians presented with DKA compared to others. (79% vs. 32%).

The deadly triad of diabetes, coronary heart disease and renal diseases in Indians was the title of a key note address by Dr. M.M.S. Ahuja (Diabetes Foundation India. (New Delhi). Dr. Ahuja elaborated on the Asian paradox of the risk factors of central obesity, insulin resistance, dyslipidaemia and coronary heart disease being different amongst Indians than the accepted risk factors in the Western Population.

Meta analysis of the prevalence data on coronary heart disease diabetes, renal diseases in India indicated 5^{th} times increase in coronary heart disease in the Urban population in the last 30 years; diabetes increased by 2 to 4 times. However, rural areas especially where the social development has not occurred continue to have low prevalence rates. Dietary intake of fats in the urban areas and the respective changes in anthropometry may be contributory factors.

Dr. Ahuja then presented the data of triglyceride tolerance test, Lp(a) studies and ongoing studies on off-springs of parents with either coronary heart disease or diabetes. Summarizing it would appear that variation in characteristic lipoprotein lipase may have a genetic background.

Similarly in off-spring studies, those with more than three of the risk factors (BMI, W/H ratio, hypertension, ECG changes, VO_2 max, hypertriglyceridemia) had a correlation with 2 hr. insulin values.

In a synthesis of evidence, he felt that the two thirds of the influences were environmental and one third was contributed by the genetic background. Therefore, evidence is available for a scope for prevention especially through modifying environment factors promotive for coronary heart disease.

The meeting concluded by analysis whether the objective of the conference had been achieved and recommended the following action plan:-

More health resource inputs for the Asian group.

1. Recognition of cultural concepts of health and disease amongst this group.
2. Community based programmes on prevention of coronary heart disease and diabetes.
3. Role of primary care physician and empowerment strategy for patients.
4. Promotion of life style in regard to nutrition, physical activity and smoking habits.

M.M.S.A.

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