

## Effect of nutritional counselling on glucose level of middle aged non-insulin dependent diabetics

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■ **ABSTRACT** : Diabetic patients who were suffering from type II diabetes mellitus and were only on oral hypoglycemic drugs for the treatment of the disease and registered at Govt. Sardar Patel Medical College and hospital, Bikaner (Rajasthan, India) as outdoor patients were studied to find out the effect of nutritional counselling on blood and urinary glucose level. The study was conducted on 180 middle aged diabetics from middle income group. The total sample was divided into 2 strata. Stratum I included diabetics suffering from last 5 years and stratum II included diabetics suffering from last 10 years. Further in each strata, diabetics were divided on the basis of sex and BMI into 3 categories *i.e.* obese, normal weight and underweight. A structured interview schedule was developed to collect the pertinent information from the respondents. Individual counselling method was opted to educate the diabetics about life style modifications to control the disease. Data on biochemical parameter were collected twice, first record was taken at starting of the study (prior to counselling) and the second after 3 months of nutritional counselling. Past history of the subjects in relation to diabetes like age at onset of disease, duration of disease, history of disease in the family, associated diseases and symptoms occurring on hyperglycemia were also studied. The mean fasting blood sugar level ranged between 'slightly elevated to elevated' levels for obese, normal weight and underweight groups with the overall mean noted as 166.6 and 174.9 mg/dl prior to counselling in both the strata, respectively. Further, a significant ( $P < 0.005$ ) reduction in FBS was noted after the counselling, with the mean values for the two strata as 113.7 and 116.8 mg/dl. Also the subjects of stratum II were having significantly ( $P < 0.05$ ) higher levels of blood sugar than of stratum I. Mean levels of urine sugar reduced significantly ( $P < 0.005$ ) after the counselling. The prior counselling mean for urine sugar was noted as 0.39 and 0.76 gm per cent for the stratum I and II, respectively. Further, stratum II subjects were having significantly ( $P < 0.01$ ) higher levels of urine sugar than the subjects of stratum I. Nutrition counselling have been found to be effective in reducing the level of glucose in blood and urine.

■ **KEY WORDS** : Non-insulin dependent diabetics, Nutritional counselling, Body mass index, Fasting blood glucose, Urinary glucose

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**D** diabetes is a disease that should be prevented and/or controlled, as it cannot be cured completely. The approach for the treatment of diabetes has been radically changed in the recent decades. Due to advanced technologies, diabetes is now one step closer to control by means of diet management, insulin/hypoglycemic drugs and exercise along with other life style changes (ADA and WHO, 2000). In the past 30 years, the prevalence of diabetes

type 2 has skyrocketed to such an extent that it is now viewed as an epidemic in the western world. From being a once fairly mild and rare ailment of the elderly to becoming a chronic disease, diabetes mellitus affects people of every age, race, and background, and is now a major modern cause of premature death in many countries around the world,

In fact, the success of treatment of diabetes mellitus largely depends upon effective motivation of the patients, for