

# EFFICACY OF DIETARY MANAGEMENT IN NEWLY DIAGNOSED NON INSULIN DEPENDENT DIABETIC PATIENTS IN AN INDUSTRIAL SET UP

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## Summary

Cases of diabetic mellitus are frequently encountered in the industrial hospitals. A study on the efficacy of dietary management of newly diagnosed non-insulin dependent diabetic mellitus patients was carried out in an industrial set-up. Among the 950 cases of diabetics registered in the diabetic clinic, 80 newly diagnosed (i) obese (n = 20; BMI = 30-32; Age = 30-65 y) and (ii) non-obese (n = 60; BMI = 22-27; Age = 47-65) patients were studied over a period of one year. Based on the body weight, physical activity,

patients were advised to take 1000-2000 K. calories. In these cases dietary history was taken and bio-chemical parameters such as G.T.T., blood glucose fasting and postprandial, blood cholesterol were recorded initially and at the monthly intervals. Weights of the patients were initially recorded and followed up for a period of one year at monthly intervals. Repeated diet counselling was provided to these patients. One of the special features of the counselling was that the diabetic diet chart where combination of diet could be used depending upon the individual interest to avoid monotony were

### The patients profile on entry

	(Mean range)			
	Obese		Non-obese	
	Men	Women	Men	Women
Number	(10)	(10)	(30)	(30)
Age (Yr)	42.9 (30-65)	47.8 (38-64)	52.3 (47-60)	54.3 (49-65)
Weight (kg)	79.8 (74-88)	71.1 (67-79)	69.5 (60-80)	55.9 (45-70)
Height (cm)	160 (151-172)	150 (147-156)	166 (152-176)	146 (147-158)
BMI (Kg/M <sup>2</sup> )	31.5 (30-32)	31.2 (31-32)	24.7 (22-27)	24.0 (22-27)
Fasting Glucose (mg/dl)	150 (140-160)	148 (140-160)	151 (140-160)	150 (140-160)
Post prandial (After 2 hrs)	194 (182-200)	194 (186-201)	195 (182-201)	192 (180-201)

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given. Among cases with the dietary management 75% showed significant improvement in post prandial blood sugar levels and the rest resorted to usage of drugs for the control of diabetes. This study indicated that out of 20 obese patients 12 had considerable improvement within 8-10 weeks as judged by the lowering blood glucose levels. The same patients showed considerable weight reduction over a period of 36 to 40 weeks when the diet regimen was followed alongwith performing short exercises. Among the 60 non-obese 50 patients showed improvement in blood glucose when compared to the initial levels within 6-8 weeks. Thus the present study clearly demonstrated that in the industrial set up where motivated captive cases of diabetic are to be treated with exclusive diet, considerable success in the control of newly diagnosed diabetes could be obtained without drugs.

### **Conclusion**

1. Dietary management is recommended in all the newly diagnosed NIDDM patients, for at least 8 to 10 weeks before starting on drugs.

2. Appropriate diet with calorie restrictions and free foods to fill the stomach helps the obese NIDDM patients to reduce the weight which is a risk factor for many metabolic disorders.

3. The study demonstrates the need for repeated and detailed dietary counselling for the effective control of diabetes.

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