

Glycemic index of developed recipe

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ABSTRACT

The recipes was developed utilizing low glycemic index foods viz., rajmah (*Phaseolus vulgaris*), green gram dhal (*Phaseolu saureus* Roxb.), soyabean (*Glycine max* Merr.) and coriander leaves (*Coriandrum sativum*). Total 60 subjects were selected for the study. Out of these 30 subjects were not suffering from any disease (Control group) and 30 were diabetics (Experimental group). The anthropometric measurements of the subjects were recorded. Glycemic response of the developed recipe was assessed by supplementing the recipe to the subjects and calculated the glycemic index. The glycemic index of the developed recipe was found to be 31.46 and 37.32 for control and experimental group, respectively.

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INTRODUCTION

Diabetes mellitus is a universal health problem affecting human societies at all stages of development. The world health organization (WHO) (1980) has pointed out that the number of diabetes patients have been increasing rapidly all over the world. Diabetes has a strong genetic basis but, environmental influences are equally important for its manifestation (Murthy and Easwaran, 1990). Diabetes cannot be cured completely but it can be kept under control by using combination of diet, drugs and exercise. Proper diet helps in maintaining normal blood sugar level in diabetes. It is recognized that a good control over blood sugar level is essential for prevention or postponement of long term complications of diabetes. Since foods of low glycemic index and high fibre content raise the blood sugar to a lesser extent thus diabetic diets can be planned considering these two factors. Therefore, while planning the diet for diabetic people the food low in glycemic index should be used.

The glycemic index indicates the extent of rise in blood sugar in response to a food in comparison with the response to an equivalent amount of glucose. Glycemic index (GI) is a rating system for evaluating how different foods affect blood sugar level. A wide variety of foods are in common use by Indians. The glycemic indices also vary widely depending on the composition of the food items. Legume pulse have low glycemic index (30- 40 %). Fruits have an intermediate glycemic index (45-55

%). Cereals like wheat, rice and root vegetables such as potato, carrots have a high glycemic index (65 -75 %). Thus for the present study, the foods containing low glycemic index rajmah, green gram dhal, soybean and coriander were selected for the development of the recipe and its implication was assessed on control and diabetic subjects.

METHODOLOGY

The recipe was developed utilizing low glycemic index foods viz., rajmah (*Phaseolus vulgaris*), green gram dhal (*Phaseolu saureus* Roxb.), soybean (*Glycine max* Merr.) and coriander leaves (*Coriandrum sativum*). Total 60 subjects were selected for the study. Out of these 30 subjects were not suffering from any disease (Control group) and 30 were diabetics (Experimental group). The purpose and discipline involved in the study was explained to all the subjects and they were allowed to continue to follow their usual living style, food intake consumption of medicine without any disturbance. The parameters like anthropometric measurements such as height, weight were recorded (Jellief, 1966) and body mass index was calculated. The clinical implication of the developed recipe was assessed by supplementing the recipe to the control and experiment group. The experiment was carried out by giving 50 g of glucose to control and diabetic subjects on first day of experiment followed by developed recipe on the next day. The fasting and post prandial blood