

Dr. V. MOHAN,
M.D., FRCP (Lond, Edin, Glasg), Ph.D., D.Sc., FNASc

Chairman & Chief of Diabetology

Dr. Mohan's Diabetes Specialities Centre

President & Chief of Diabetes Research

Madras Diabetes Research Foundation



Dr. Mohan's
DIABETES SPECIALITIES CENTRE



**MADRAS DIABETES
RESEARCH FOUNDATION**



WHO Collaborating Centre for Non-communicable Diseases Prevention & Control

July 22, 2009.

Dear Mr. Ramu,

Sub : Evaluation of Rasagulla made with Levulose on patients with
Type 2 diabetes

As requested by you, I am sending the evaluation report of the Rasagulla study conducted at our centre in patients with type 2 diabetes. From the study, we can conclude that Rasagulla made with Levulose when taken occasionally will not affect the blood sugar levels in patients with type 2 diabetes.

Thanking you and with regards,

Yours sincerely,

Dr. V. MOHAN, M.D., FRCP (London, Edinburgh & Glasgow), Ph.D., D.Sc., F.N.A.Sc
Chairman & Chief Diabetologist

TO

MR. K. RAMU,
CHAIRMAN AND MANAGING DIRECTOR,
SUNDAR DIETETICS,
6-G, CENTURY PLAZA,
560-562 ANNA SALAI
TEYNAMPET
CHENNAI -600018

GOPALAPURAM CENTRE :
6a, Conran Smith Road,
Gopalapuram, Chennai 600086.
Ph: (91-44) 43968888, 28359043 / 51
Fax: (91-44) 28350935

ANNA NAGAR CENTRE :
TSR Tower, II Avenue,
Anna Nagar, Chennai 600040.
Ph: (91-44) 43453800, 26212751, 42026432-35
Fax: (91-44) 26212752

TANBARAM CENTRE :
No 2, Kalidasan Street, East Tambaram,
Chennai-600059.
Ph: (91-44) 42283333, 45572005 / 2121
Fax: (91-44) 2292973

HYDERABAD CENTRE :
Road No.36, Jubilee Hills,
Hyderabad-500033.
Ph: (91-40) 23554441 / 79
Fax: (91-40) 23549894

CHUNAMPET CENTRE :
Door No 6, Aravali Nagar,
Chunampet Village,
Kancheepuram Dist.
Phone: (91-44) 2750 6621

VELLORE CENTRE :
No. 13, 7th East Main Road,
Gandhi Nagar, Vellore - 632 006.
Phone: (91-416) 2248612
Fax: (91-416) 2248412

EVALUATION OF RASAGULLA MADE WITH LEVULOSE ON PATIENTS WITH TYPE 2 DIABETES

OBJECTIVE:

To assess the effect of an Indian sweet Rasagulla made with levulose (a natural sugar substitute) on the blood sugar levels of patients with type 2 diabetes.

STUDY DESIGN AND METHOD:

Patients with type 2 diabetes admitted at Dr.Mohan's Diabetes Specialities Centre were recruited for the study. All of them were on oral anti diabetic drugs and insulin. The dose of Oral Hypoglycemic Agents or Insulin was not altered during the study period. Male and female subjects age greater than 20 years and less than 60 years and whose duration of diabetes was less than 15 years and HbA1c value less than 9% were included for the study. Patients with hypoglycaemic episodes and with erratic blood sugar levels were excluded from the study. Pregnant women and patients with severe infection were also excluded.

PROCEDURE:

30 Subjects who were admitted and undergoing treatment were selected for the study. The study period for each subject was 2 consecutive days. Standard breakfast and lunch was given for all the subjects during the study period. Two slices of whole wheat bread was given with tea at tea time on day 1 and one slice of bread and one rasagulla made with levulose was given with tea on day 2. Blood samples were taken before tea, half an hour after tea and one and half an hour after tea. Data obtained was entered in MS ACCESS and statistical analysis was carried out with SPSS package version 9.0,0 Chicago IL.

RESULTS:

Table below shows the blood sugar values after taking the standard food and the test food. It was observed that incorporation of levulose in a sweet preparation has no marked changes in the blood sugar values. Therefore it was concluded that type 2 diabetes can safely include rasagulla made with the recommended quantity occasionally since sweets are normally prohibited for patients with diabetes.