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# Glutahenz

L-Glutamine 15 gm Sachet

La Renon



# A Novel Approach to Chemotherapy Induced Toxicity

Radiotherapy is one of the cornerstones in the management of head and neck malignancies. Annually, there are approximately 400,000 cases of treatment induced damage to the oral cavity. Oral mucositis is the most frequently occurring painful and dose limiting side effect of therapeutic irradiation of the head and neck cancer.

Glutamine may help decrease mucous membrane injury induced by radiation by altering the inflammatory response. Glutathione, a byproduct of glutamine metabolism protects against oxidant injury. Glutathione is an antagonist to prostaglandin E2 (PGE2) production, which is a strong inflammatory mediator.

A randomized, prospective single institutional case control study on 70 biopsy proven patients with head and neck cancer receiving primary or adjuvant radiation therapy were randomized to receive either oral glutamine suspension daily 2h before radiation in the study arm (10 g in 1000 ml of water) (n = 35) or nothing before radiation; control arm (n = 35).

Although, there have been various trials in the past which prove that Oral glutamine is having strong role to reduce the chemotherapy induced side effects i.e. stomatitis, intestinal injury in cancer patients.

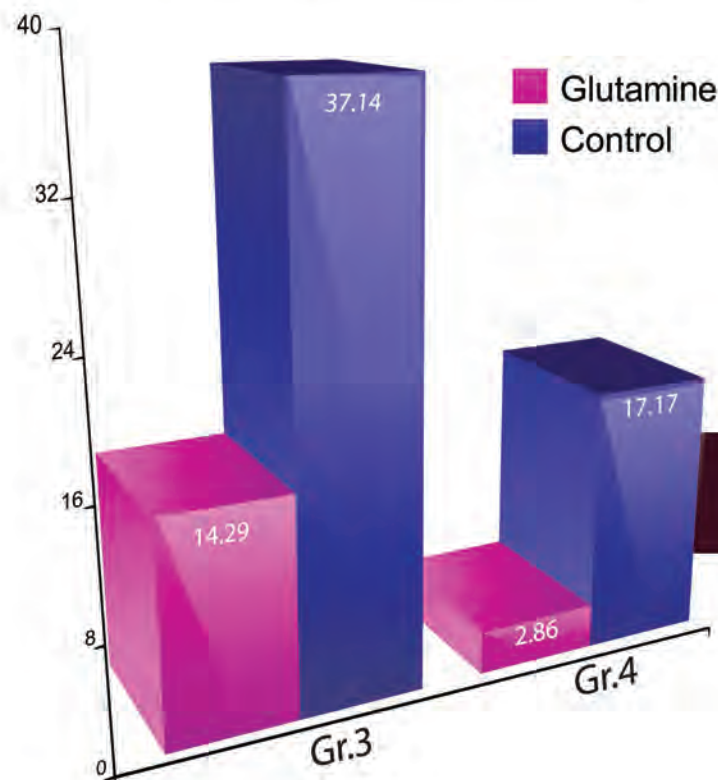


Figure: Bar diagram comparing the incidence of grade 3 and grade 4 mucositis in both arms

In the following analysis of result, Patients who developed grade 3 and grade 4 mucositis was significantly less in study arm(Glutamine) than control arm.

1. Number of patient
2. The mean duration of mucositis
3. The mean time to onset of mucositis
4. Patients received concurrent chemo radiation
5. Patients undergoing only radiation



# A novel therapeutic approach to stimulating insulin secretion in Obesity and Type 2 diabetes

- Incretin hormones, such as glucagon-like peptide 1 (GLP-1) and glucose-dependent insulinotropic polypeptide (GIP), play an important role in meal-related insulin secretion.
- Three groups- 8 healthy normal-weight volunteers (LEAN), 8 obese individuals with type 2 diabetes or impaired glucose tolerance (OB-DIAB) and 8 obese nondiabetic control subjects (OB-CON).
- Circulating GLP-1 concentrations increased in all study groups after glutamine ingestion, with peak concentrations at 30 min of  $22.5 \pm 3.4$ ,  $17.9 \pm 1.1$ , and  $17.3 \pm 3.4$  pmol/L in LEAN, OB-CON, and OB-DIAB subjects, respectively.

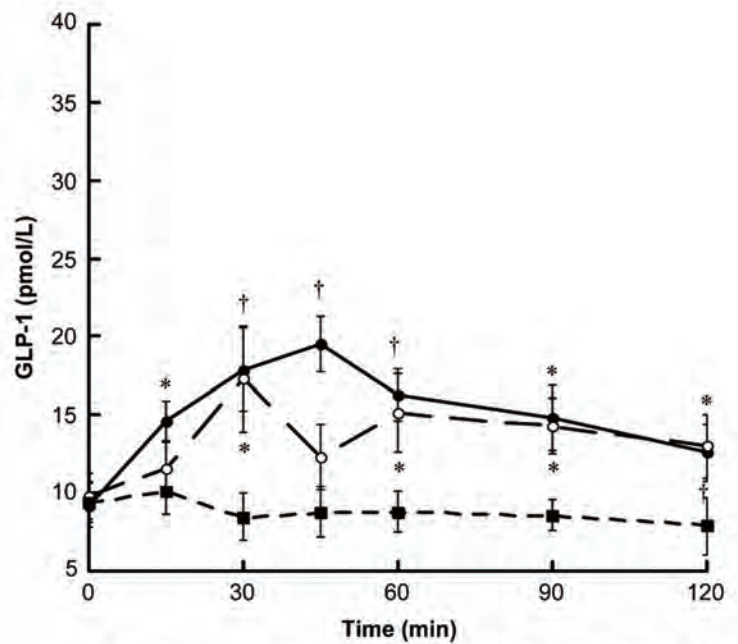
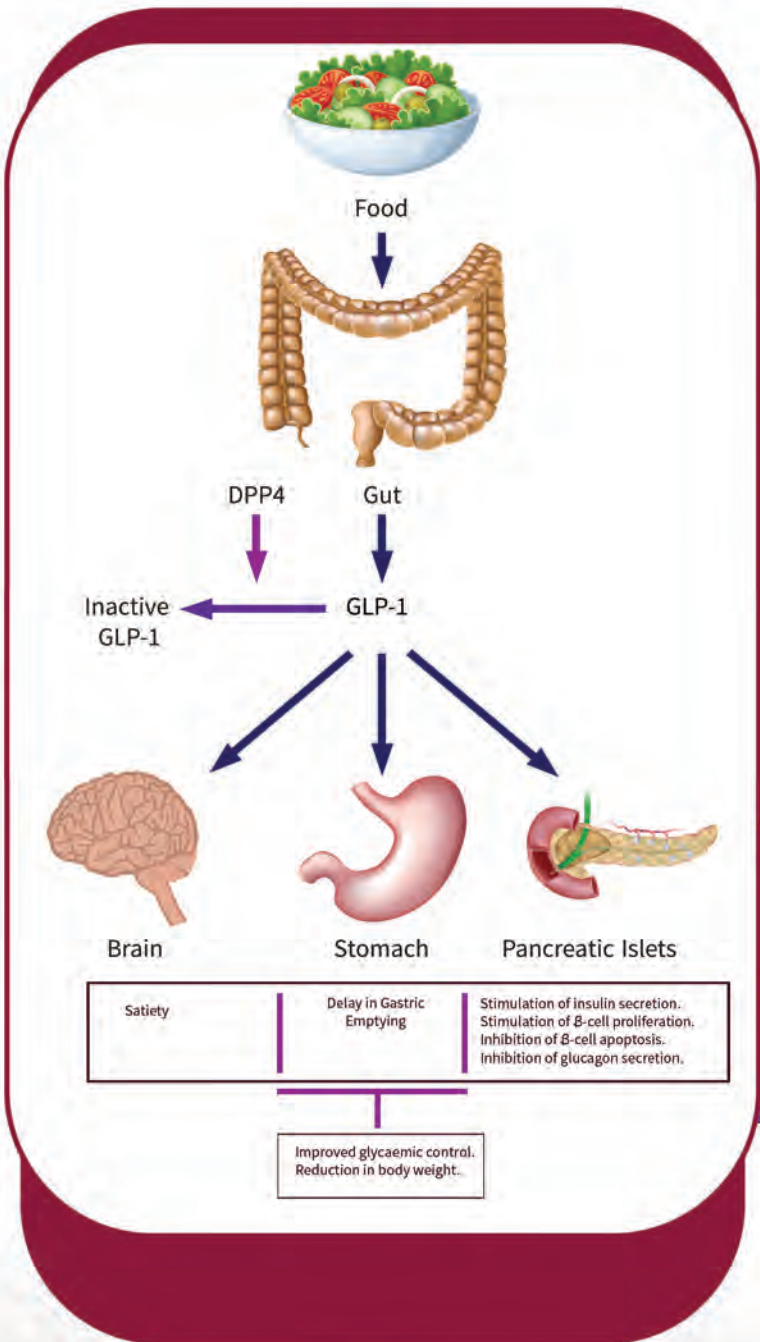


Fig: Plasma glucagon-like peptide 1 (GLP-1) concentrations after the ingestion of glucose (black circles), glutamine (white circles), and water (black squares) in 8 obese individuals with type 2 diabetes or impaired glucose tolerance. Data are mean  $\pm$  SE. \*P < 0.05, \*\*P < 0.01, and \*\*\*P < 0.001 compared with water (paired t test).

Consistent with the increases in GLP-1 and GIP, glutamine significantly increased circulating plasma insulin concentrations may represent a novel therapeutic approach to stimulating insulin secretion in obesity and type 2 diabetes.

Reference:  
 1) Subrata C, Aramita S et. al. *South Asian Journal of Cancer*; January-March 2014; Vol 3(1);8-13.  
 2) Jerry R G, I Sadaf F et. al. *American Journal of Clinical Nutrition* 2009;89:106-13




# Glutahenz<sup>®</sup>

## L-Glutamine 15 gm Sachet

L-Glutamine in granule form, which can be used orally and through tube feeding as well. L-Glutamine, an Immunohancer is an effective fuel for intestinal cells as well as improves the gut function and therefore indicated for various critical disorders as under:


- All types of GI disorders
- Critical illnesses like septic shock / Multiple Trauma and Burns
- Immune Deficiencies
- As an adjuvant therapy in all type of cancer patients and BMT
- Bowel disease



Available in  
15 gm sachet  
containing 10 gm  
L-Glutamine &  
other excipients



Lemon Flavor -  
The perfect choice



Presentation  
10 sachet  
in one primary  
pack

### Clinical study:

Enteral glutamine supplementation in adult burn patients reduces blood infection by a factor of three, prevents bacteremia with *P. aeruginosa*, and may decrease mortality rate.

Encouraging to note that patients of head and neck cancer suffering from severe mucositis due to standard treatment (radiation with or without concurrent chemotherapy) can be alleviated to a great extent simply by such a feasible and affordable option.

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