

The factors for Limited use of Gastric Emptying Scintigraphy in the Management of Diabetic Gastroparesis

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Sir,

Diabetes Mellitus is one of the most common non communicable diseases, with rising incidence and prevalence. Several systemic complications like retinopathy are known to arise in long standing diabetes, gastroparesis is one such complication, and adds to morbidity of these patients. Early diagnosis of gastroparesis may be valuable in prompt management and thereby improving patient outcome. Various methods have been devised for diagnosis of gastroparesis but Gastric Emptying Scintigraphy (GES) stands out as the test of choice as it is physiological study which quantifies the gastric retention and can also be used for follow up of these patients after initiating treatment. Careful consideration of meal used, and

adherence to standardized procedure minimizes the errors in the results and increases validity of the study. Several studies have been performed utilizing GES have helped in evaluating role of various disease related factors in diabetic gastroparesis Table 1. [1-4]. However larger multicentric studies will help in further standardizing the procedure especially with regards to the meal used in GES which is one of the main limitation restrictive to the popularity of this modality. Availability and inhibition due to radiation are other important factors restricting its use. We recommend utilization of this modality with more fervor for better patient management in symptomatic diabetics.

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Table 1. Major Hospital based studies and their key findings utilizing GES in Diabetics

Study	Participants	Key findings
Izzy M <i>et al.</i> 2017 [1]	299 patients of Type 1 and Type 2 DM	Poor glycemic control is associated with delayed gastric emptying. No significant association of age, gender, or type of DM with 4h gastric retention values.
Anudeep V <i>et al.</i> 2012 [2]	140 patients of Type 2 DM	HbA1c and BMI are independent predictors of delayed GE. Presence and severity of symptoms of gastroparesis do not predict delayed GE. Delayed GE associated with increased risk of hypoglycemic episodes.
Bharucha <i>et al.</i> 2008 [3]	129 patients of Type 1 and Type 2 DM	Significant weight loss and neuropathy are risk factors for delayed and rapid GE respectively. Type and duration of DM, HbA1c, extraintestinal complications not associated with delayed or rapid GE.
Chedid <i>et al.</i> 2019 [4]	108 patients of Type 1 and Type 2 DM	Testing for gastric emptying and gastric accommodation aids in targeted individualized treatment.

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