

GASTRIC EMPTYING RETARDATION IN HYPOTHYROIDISM: MYTH OR REALITY.

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Hypothyroidism (HP) has been evoked as a possible cause of delayed gastric emptying (GE). To our knowledge no study has specifically addressed this problem yet.

The aim of our study was to evaluate GE in asymptomatic patients with evidence of HP. No patient had a history of gastric disease nor was taking any medication likely to interfere with gastric emptying.

We have studied 10 patients (8 males and 2 females) mean age 57 +/- 18 year) with a TSH value measured by RIA >20μU/ml (normal range 0.1 – 5 μU/ml) and compared their results with a normal data base of 20 subjects. After an overnight fast, all patients underwent the same test procedure. The standardized test meal consisted of 1 scrambled egg labelled with 1 mCi of Tc-99m-SC, 2 slices of bread and 125 ml of water. Anterior and posterior images of the stomach were recorded every 10 minutes for 2 hours. Gastric counts were determined at each time interval and corrected for Tc decay.

Geometric mean of the counts was calculated and the percentages of activity retained in the stomach after 60 and 120 minutes were then determined. T1/2 was obtained using the modified power exponential function $y = 1 - (1 - e^{-kt})^B$ and compared to the normal subjects values. GE was significantly delayed ($p < 0.05$) in patients with biological HP (mean T1/2 = 116 +/- 44 min.) Individually, 8 out of the ten patients were outside the upper normal limit, i.e. >87 min. (mean +/- 2 SD).

In conclusion, our study confirms that dysfunction of the thyroid gland may influence gastric motor function and demonstrates that, in asymptomatic patients with biological evidence of HP and who are not receiving a substitutive therapy yet, GE of solid is significantly delayed.