

Enteron

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Dear Doctor,

Greetings from Micro Labs limited. We are happy to bring you “**ENTERON**” which contains latest and interesting news in the field of Gastroenterology.

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Should you require any specific article or medical information, please feel free to contact us at medicalservices@microlabs.in

Looking forward to your valuable feedback

Best Regards,

Medical Team, Micro Labs Ltd

Proton Pump Inhibitor Use, Hypomagnesemia and Risk of Cardiovascular Diseases. The Atherosclerosis Risk in Communities (ARIC) Study

Goals

The goal of this study was to gauge whether proton pump inhibitor (PPI) use is cross-sectionally related to hypomagnesemia and whether hypomagnesemia mediates the potential association between PPIs and disorder (CVD) risk.

Background

Use of PPIs has been related to hypomagnesemia, primarily just in case reports or within insurance databases. Both PPI use and low serum magnesium (Mg) are related to modestly higher CVD risk. Yet, the interrelation between PPI use and Mg in reference to CVD risk is unclear.

Study:

The 4436 Atherosclerosis Risk in Communities participants without prevalent CVD at visit 5 (baseline, 2011-2013) were included. Multivariable relative risk regression was used for cross-sectional analyses between PPI and hypomagnesemia prevalence (≤ 0.75 mmol/L). Incident CVD (defined by fibrillation, coronary heart condition, CVD mortality, coronary failure, stroke) was identified through 2017. Multivariable Cox regression was used to examine the PPI-CVD association.

Results:

Participants were mean $\pm$ SD aged 75 $\pm$ 5 years; 63% were women, 23% Black, and 24% were PPI users. PPI users had 1.24-fold (95% confidence interval: 1.08-1.44) higher prevalence of hypomagnesemia than nonusers. Over a median 5 years of follow-up, 684 incident CVD events occurred. PPI users had higher CVD risk [hazard ratio (95% confidence interval) 1.31 (1.10-1.57)] than nonusers. The effect estimate was largely unchanged when hypomagnesemia was added to the model as a possible mediator.

Conclusions:

In this elderly community-based study, PPI users had a better prevalence of hypomagnesemia than in nonusers. PPI users also had higher CVD risk than nonusers; however, it appears unlikely that hypomagnesemia explains associations of PPIs with CVD risk.

Reference:

Folsom AR, Alonso A, Misialek JR, Michos ED, Selvin E, Eckfeldt JH, Coresh J, Pankow JS, Lutsey PL. Parathyroid hormone concentration and risk of cardiovascular diseases: the Atherosclerosis Risk in Communities (ARIC) study. *Am Heart J*. 2014 Sep;168(3):296-302.

Role of Gastrointestinal Hormones as a Predictive Factor for Long-Term Diabetes Remission: Randomized Trial Comparing Metabolic Gastric Bypass, Sleeve Gastrectomy, and Greater Curvature Plication

Purpose

Long-term studies comparing the mechanisms of various bariatric techniques for T2DM remission are scarce. We aimed to match type 2 diabetes (T2DM) remission after a gastric bypass with a 200-cm biliopancreatic limb (mRYGB), sleeve gastrectomy (SG), and greater curvature plication (GCP), and to assess if the initial secretion of gastrointestinal hormones may predict metabolic outcomes at 5 years.

Material and Methods

Forty-five patients with mean BMI of 39.4(1.9)kg/m² and T2DM with HbA1c of seven .7(1.9)% were randomized to mRYGB, SG, or GCP. Anthropometric and biochemical parameters, fasting concentrations of PYY, ghrelin, glucagon, and AUC of GLP-1 after SMT were determined before and at months 1 and 12 after surgery. At 5-year follow-up, anthropometrical and biochemical parameters were determined.

Results

Total weight loss percentage (TWL%) at year 1 and GLP-1 AUC at months 1 and 12 were higher within the mRYGB than within the SG and GCP. TWL% remained greater at 5 years in mRYGB group – 27.32 (7.8) vs. SG – 18.00 (10.6) and GCP – 14.83 (7.8), $p = 0.001$. At 5 years, complete T2DM remission was observed in 46.7% after mRYGB vs. 20.0% after SG and 6.6% after GCP, $p < 0.001$. within the statistical method , shorter T2DM duration (OR 0.186), $p = 0.008$, and therefore the GLP-1 AUC at 1 month (OR 7.229), $p = 0.023$, were prognostic factors for complete T2DM remission at 5-year follow-up.

Conclusions

Long-term T2DM remission is usually achieved with hypoabsorptive techniques like mRYGB. Increased secretion of GLP-1 after surgery and shorter disease duration were the most predictors of T2DM remission at 5 years.

Reference:

Casajoana A, Guerrero-Pérez F, García Ruiz de Gordejuela A, Admella V, Sorribas M, Vidal-Alabró A, Virgili N, Urdiales RL, Montserrat M, Pérez-Maraver M, Monasterio C, Salord N, Pellitero S, Fernández-Veledo S, Vendrell J, Gebelli JP, Vilarrasa N. Role of Gastrointestinal Hormones as a Predictive Factor for Long-Term Diabetes Remission: Randomized Trial Comparing Metabolic Gastric Bypass, Sleeve Gastrectomy, and Greater Curvature Plication. *Obes Surg.* 2021 Jan 5

A Network Meta-Analysis of Randomized Controlled Trials on the Treatment of Eosinophilic Esophagitis in Adults and Children

Background:

Network meta-analysis is employed as a knowledge synthesizer, incorporating direct and circumstantial evidence about treatments during a series of randomized control trials.

Objective:

To evaluate the comparative efficacy of varied treatments for eosinophilic esophagitis (EoE).

Methods:

We performed a network meta-analysis to mix direct and indirect data to research the efficiency of drug therapies, which were evaluated in relevant randomized control trials for EoE.

Results:

Seventeen eligible studies (14 two-arm and three multiple-arm) were introduced to the meta-analysis. a complete of 1011 patients were included, in whom 15 therapeutic interventions were used, namely: (1) budesonide oral suspension, (2) budesonide 1 mg orodispersible tablet twice daily, (3) budesonide 2 mg orodispersible tablet twice daily, (4) esomeprazole, (5) fluticasone, (6) nebulized steroid, (7) placebo, (8) prednisone, (9) anti-IL-5-mab (mepolizumab), (10) anti-IL-5-mab [reslizumab(1), ie, 1 mg/kg], (11) anti-IL-5-mab [reslizumab(2), ie, 2 mg/kg], (12) anti-IL-5-mab [reslizumab(3), ie, 3 mg/kg], (13) anti-IL-13-mab (QAX 576), (14) anti-IL-13-mab [RCP 4046 (180)], and (15) anti-IL-13-mab [RCP 4046 (360)]. Budesonide 1 mg orodispersible tablet twice daily showed the very best efficacy (SUCRA 0.91), whereas placebo was the smallest amount effective. In adult patients budesonide 1 mg orodispersible tablet twice daily remained the optimal treatment approach, whereas the corresponding therapeutic approach in pediatric patients was fluticasone.

Conclusions

This meta-analysis showed that budesonide 1 mg orodispersible tablet twice daily was the simplest treatment for EoE, because it was the foremost effective. This treatment remained the optimal approach in adult patients, whereas fluticasone was the simplest treatment in paediatric patients.

Reference:

Rokkas T, Niv Y, Malfertheiner P. A Network Meta-Analysis of Randomized Controlled Trials on the Treatment of Eosinophilic Esophagitis in Adults and Children. *J Clin Gastroenterol*. 2020 May 8.



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