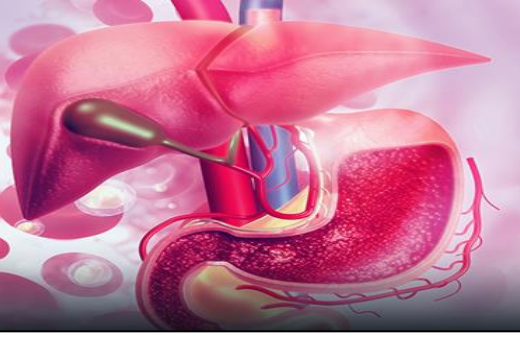
Enteron



Volume 2|Issue 23|2021

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.

Inside This Issue:

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,

Enteron

Volume 2|Issue 23|2021

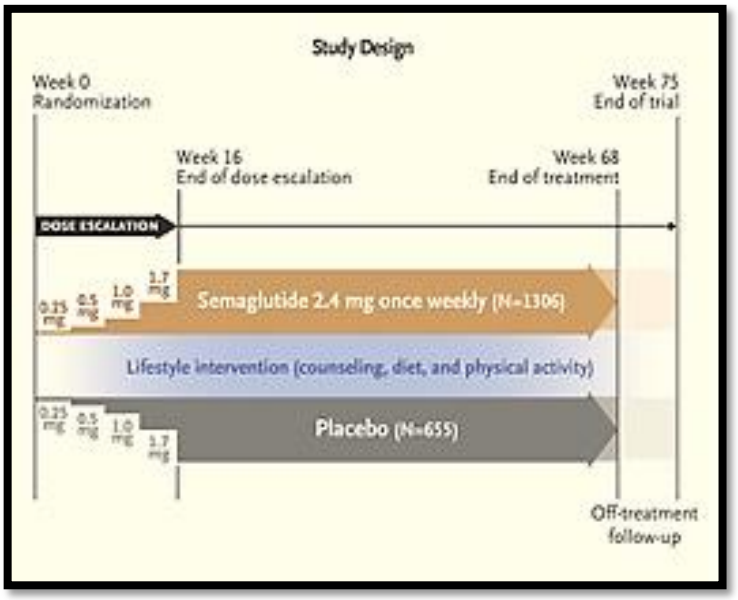
Medical Team, Micro Labs Ltd

Once-Weekly Semaglutide in Adults with Overweight or Obesity

Introduction:

Obesity is a global epidemic, and with the improvement of people's living standards, its incidence continues to increase.

As we all know, obesity will increase the risk of many diseases, including diabetes, cardiovascular disease, non-alcoholic fatty liver disease, cancer and so on. **However, although the need to treat obesity is very urgent, the development of obesity treatments is extremely difficult. At present, the weight-loss therapies approved by regulatory agencies have strong side effects and cannot be used for a long time.** Semaglutide is an analog of GLP-1, which can stimulate the production of insulin, inhibit the secretion of glucagon, reduce appetite and food intake. It has been approved by the FDA for the treatment of patients with type 2 diabetes.



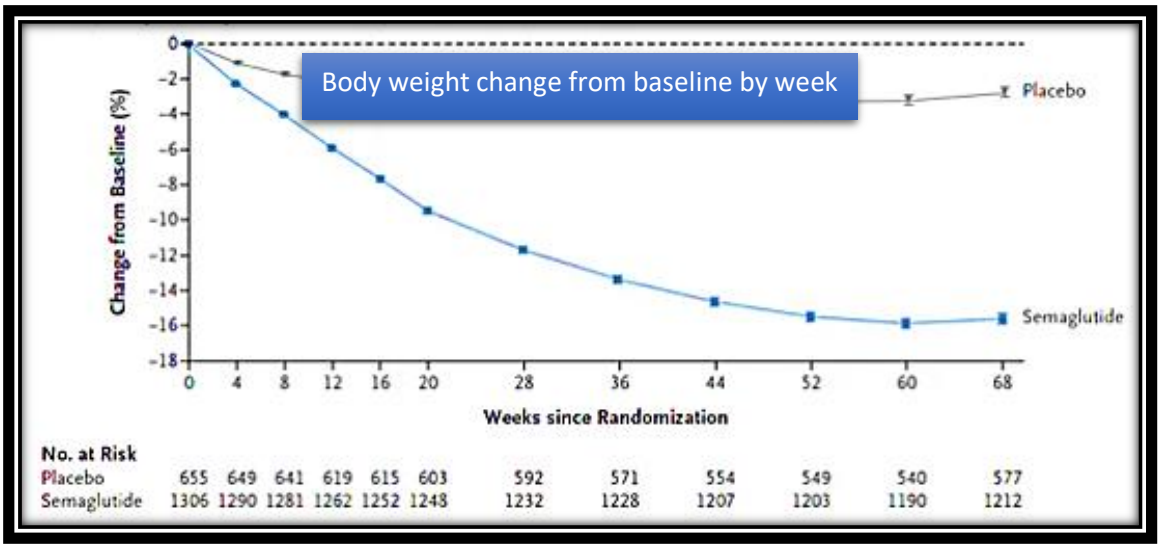
Methods:

Around 1961 adults with a body-mass index (the weight in kilograms divided by the square of the height in meters) of 30 or greater (≥27 in persons with ≥1 weight-related coexisting condition), who did not have diabetes, were randomly assigned in a 2:1 ratio, to 68 weeks of treatment with once-weekly subcutaneous semaglutide (at a dose of 2.4 mg) or

placebo, plus lifestyle intervention. The coprimary end points were the percentage change in body weight and weight reduction of at least 5%. The primary estimand (a precise description of the treatment effect reflecting the objective of the clinical trial) assessed effects regardless of treatment discontinuation or rescue interventions.

RESULTS

After 68 weeks of treatment, the semaglutide group lost an average of 14.9% in body weight, compared with 2.4% in the control group. (95% confidence interval [CI], −13.4 to −11.5; P<0.001). More participants in the semaglutide group than in the placebo group achieved weight reductions of 5% or more (1047 participants [86.4%] vs. 182 [31.5%]), 10% or more (838 [69.1%] vs. 69 [12.0%]), and 15% or more (612 [50.5%] vs. 28 [4.9%]) at week 68 (P<0.001 for all three comparisons of odds).



The change in body weight from baseline to week 68 was −15.3 kg in the semaglutide group as compared with −2.6 kg in the placebo group (estimated treatment difference, −12.7 kg; 95% CI, −13.7 to −11.7). Participants who received semaglutide had a greater improvement with respect to cardiometabolic risk factors and a greater increase in participant-reported physical functioning from baseline than those who received placebo. Nausea and diarrhea were the most common adverse events with semaglutide; they were typically transient and mild-to-moderate in severity and subsided with time. More participants in the semaglutide group than in the placebo group discontinued treatment owing to gastrointestinal events (59 [4.5%] vs. 5 [0.8%]).

Enteron

Volume 2|Issue 23|2021

CONCLUSIONS

In participants with overweight or obesity, 2.4 mg of semaglutide once weekly plus lifestyle intervention was associated with sustained, clinically relevant reduction in body weight.

Source: Wilding JPH et al. STEP 1 Study Group. Once-Weekly Semaglutide in Adults with Overweight or Obesity. N Engl J Med. 2021 Mar 18;384(11):989.

Timing of Endoscopy for Acute Upper Gastrointestinal Bleeding

Introduction:

Acute upper gastrointestinal bleeding is one of the most common medical emergencies. Endoscopy allows identification of the source of bleeding, as well as haemostatic treatment for actively bleeding lesions. Endoscopic haemostatic treatment of high risk lesions stops bleeding and reduces the risk of further bleeding and the need for surgery. An international consensus group recommends endoscopy within 24 hours after presentation for patients with acute upper gastrointestinal bleeding. For patients who are at high risk for further bleeding or death, the consensus group could not make a recommendation for or against performing endoscopy within 12 hours as opposed to performing endoscopy later. Many observational studies, three randomized, controlled trials and two systematic reviews have shown that urgent endoscopy (the definitions of which have varied among studies, ranging from within 2 hours to within 12 hours after presentation) in unselected patients with acute upper gastrointestinal bleeding did not decrease mortality.

Aim: To evaluate whether urgent endoscopy improves outcomes in patients predicted to be at high risk for further bleeding or death.

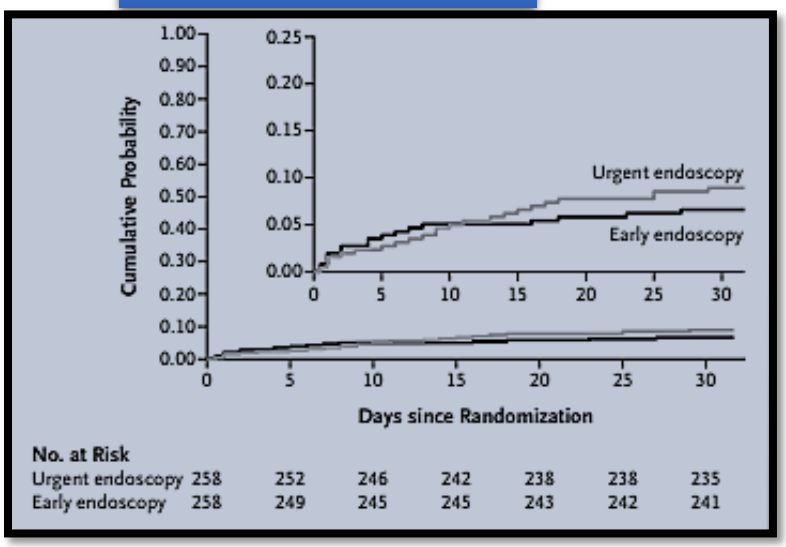
Methods: Randomly assigned patients with overt signs of acute upper gastrointestinal bleeding and a Glasgow–Blatchford score of 12 or higher (scores range from 0 to 23, with higher scores indicating a higher risk of further

bleeding or death) to undergo endoscopy within 6 hours (urgent-endoscopy group) or between 6 and 24 hours (early-endoscopy group) after gastroenterologic consultation.

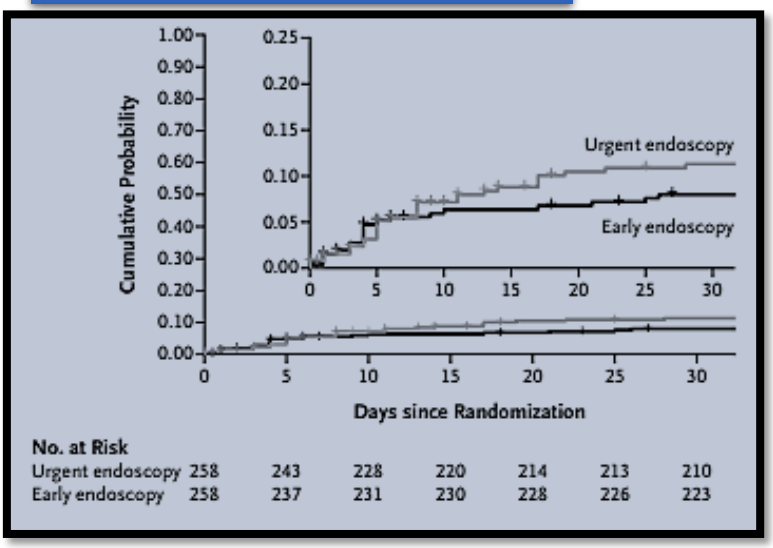
Primary end point: Death from any cause within 30 days after randomization.

Results: A total of 516 patients were enrolled. The 30-day mortality was 8.9% (23 of 258 patients) in the urgent-endoscopy group and 6.6% (17 of 258) in the early-endoscopy group (difference, 2.3 percentage points; 95% confidence interval [CI], −2.3 to 6.9).

Cumulative probability of death



Cumulative probability of further bleeding



Further bleeding within 30 days occurred in 28 patients (10.9%) in the urgent endoscopy group and in 20 (7.8%) in the early-endoscopy group (difference, 3.1 percentage points; 95% CI, −1.9 to 8.1). Ulcers with active bleeding or visible vessels were found on initial endoscopy in 105 of the 158 patients (66.4%) with peptic ulcers in the urgent-endoscopy group and in 76 of 159 (47.8%) in the early-endoscopy group. Endoscopic hemostatic treatment was administered at initial endoscopy for 155 patients (60.1%) in the urgent-endoscopy group and for 125 (48.4%) in the early-endoscopy group.

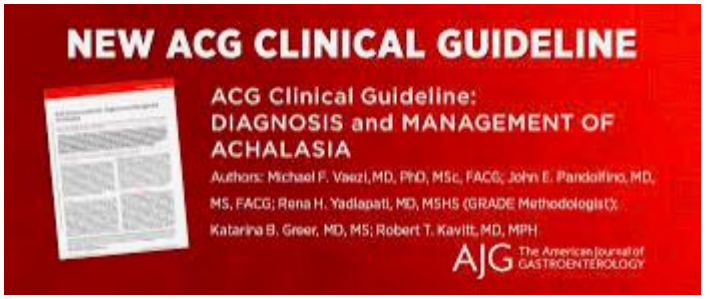
Conclusions: In patients with acute upper gastrointestinal bleeding who were at high risk for further bleeding or death, endoscopy performed within 6 hours after gastroenterologic consultation was not associated with lower 30-day mortality than endoscopy performed between 6 and 24 hours after consultation.

Enteron

Volume 2|Issue 23|2021

Source: Lau JYW, et al. Timing of Endoscopy for Acute Upper Gastrointestinal Bleeding. N Engl J Med. 2020 Apr 2;382(14):1299-1308.

New ACG guideline: Diagnosis and management of Achalasia



New ACG guideline addresses the diagnosis, treatment, and overall management of adult patients with achalasia and provides recommendations for tailored treatment. Achalasia is an oesophageal motility disorder with a global incidence ranging from 0.03 to 1.63 per 1 lakh persons per year. To date, there is no cure for achalasia and all current treatment options are palliative in nature. The ultimate goals of therapy include reducing symptoms, improving oesophageal emptying, and preventing further dilation of the oesophagus.

Diagnosis of Achalasia

An incorrect GERD diagnosis can significantly delay the diagnosis.

Recommendation:

Patients who are initially suspected of having GERD but do not respond to acid-suppressive therapy should be evaluated for achalasia. Heartburn is commonly found in patients with achalasia, with about 27 to 42% of patients reporting experiencing heartburn. Due to overlapping symptoms, achalasia is often misdiagnosed as gastroesophageal reflux disease (GERD) and patients are treated with proton pump inhibitors (PPI). An incorrect GERD diagnosis can significantly delay achalasia diagnosis.

Use of oesophageal pressure topography

Based on the inherent benefit of improved detail in describing oesophageal pressurisation

and contractile patterns using oesophageal pressure topography and superior accuracy and reproducibility in diagnosing achalasia in both randomised controlled and blinded comparison studies, it is recommended to use

oesophageal pressure topography over conventional line tracing for the diagnosis of achalasia. High-resolution manometry (HRM) is the current gold standard test for the conformation of achalasia. Compared to conventional low-resolution pressure tracing manometry, HRM leverages improved space-time resolution and a more intuitive description of contractile and pressure patterns to refine the classification of motor dysfunction.

Initial treatment options

Current treatment options in achalasia include pharmacologic, endoscopic, and surgical means.

Pharmacologic therapy is the least effective treatment option in achalasia. Calcium channel blockers and nitrates are the two most commonly used medications in treating achalasia. Pharmacotherapy should be reserved for patients with achalasia who are not candidates for definitive therapies of pneumatic dilation (PD), laparoscopic Heller myotomy (LHM), or per oral endoscopic myotomy (POEM) and have failed botulinum toxin injection.

Botulinum toxin injection

The guideline recommends botulinum toxin injection as first-line therapy for patients with achalasia that are unfit for definitive therapies compared with other less-effective pharmacological therapies.

Botulinum toxin is a useful treatment in achalasia. Most treatment effects are associated with an approximate 50% reduction in the basal LES pressure. This reduction may be sufficient to allow oesophageal emptying when oesophageal pressure rises to a level where it can overwhelm the partially paralysed LES.

Botulinum toxin is an effective treatment option, but its benefits are short-lived, and the medication should not be offered as first-line treatment to patients who are fit for myotomy. The panel recommends that treatment with botulinum toxin injection does not significantly affect the performance and outcomes of myotomy.

Pneumatic dilation

Based on no evidence to support routine esophagram and the current shift in practice patterns to perform endoscopy after dilation to rule out and potentially treat perforation endoscopically, we do not suggest obtaining routine gastrografin esophagram after dilation. Pneumatic dilation is associated with good to excellent relief of symptoms in 50 to 93% of patients with achalasia. Serial pneumatic dilation is an effective treatment option for short and long-term symptom and physiologic benefit.

Oesophageal perforation is the most serious complication associated with pneumatic dilation. Early recognition and management of perforation can improve patient outcomes. Antibiotic, parenteral nutrition, and stent

placement may be effective in small perforation, but in large and extensive mediastinal contamination, surgical repair through thoracotomy should be preferred.

There is no role for routine esophagram to rule out perforation in post-dilation recovery. This test should be reserved for patients with a clinical suspicion for perforation after dilation.

Surgical myotomy

Surgical myotomy is one of the 3 definitive therapies for achalasia. Laparoscopic myotomy is the preferred method because of decreased morbidity and faster recovery.

Fundoplication postmyotomy

Based on available data, the panel recommends that myotomy with fundoplication is superior to myotomy without fundoplication in controlling distal oesophageal acid exposure. The development of GERD after myotomy is a frequent problem, and whether an antireflux procedure should be performed to prevent reflux has been the subject of extensive debate,

especially given concerns for increased postoperative dysphagia after a fundoplication. The addition of fundoplication after myotomy is associated with decreased risk of GERD for thoracotomy, laparotomy, and laparoscopy. The addition of fundoplication to myotomy reduces the incidence of distal oesophageal acid exposure. The benefits of fundoplication are sustained long term.

Dor and Toupet antireflux procedure after myotomy

Based on current data, the guideline suggests either Dor or Toupet fundoplication to control oesophageal acid exposure in patients with achalasia undergoing surgical myotomy. Adding a fundoplication is beneficial for reducing the rate of GERD after myotomy, however, there is less certainty on the best approach (anterior Dor or posterior Toupet). Studies show Toupet fundoplication to be superior to Dor by reducing the length of hospital stay and improving patient's quality of life.

Per oral endoscopic myotomy (POEM)

Based on current data, tailored POEM or LHM for type III achalasia is recommended as a

more efficacious disruptive therapy of the LES compared with PD. POEM is a hybrid technique developed to incorporate an endoscopic approach with principles of natural orifice transluminal endoscopic surgery to perform a myotomy. POEM is commonly used in type III achalasia. With POEM, the length of the myotomy can be tailored and the entire length of the smooth muscle of the oesophagus can be included if necessary. This length

can be tailored to findings of the length of the spastic segment noted on high-resolution oesophageal manometry, length of oesophageal wall thickening noted on endoscopic ultrasound, or functional lumen imaging probe (FLIP).

GERD post-POEM

The panel supports the evidence that in patients with achalasia, POEM compared with LHM with fundoplication or PD is associated with a higher incidence of GERD.

As GERD is a common issue post-POEM, it is suggested to screen patients who undergo POEM for erosive esophagitis or Barrett's oesophagus. Patients who are considering POEM should be advised that lifelong acid suppression with PPIs may potentially be needed.

Esophagectomy

Based on these limited data, esophagectomy in surgically fit patients with megaesophagus who have failed other interventions is recommended. Patients with “end-stage” achalasia and those with untreated achalasia are at risk of aspiration, aspiration pneumonia, and malnutrition. In these set of patients, PD, surgical myotomy, or POEM may be less effective. Those with compromised nutrition may require enteral feeding. Esophagectomy is associated with a high incidence of postoperative respiratory complications including pneumonia, but the intervention shows reasonably low mortality in carefully selected individuals treated at highly specialized surgical centres. Gastric interposition is the first choice of therapy in most patients undergoing esophagectomy.

Source: Vaezi MF, Pandolfino JE, Vela MF. ACG clinical guideline: diagnosis and management of achalasia. Am J Gastroenterol. 2013 Aug;108(8):1238-49

Enteron

Volume 2|Issue 23|2021