

Middle age man with Gastroparesis

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Received: August 2022 Accepted: September 2022; Published: October 1, 2022.

Citation: Babur Qayyum Khan. Middle age man with Gastroparesis. World Family Medicine. 2022; 20(10): 107-108.

DOI: 10.5742/MEWFM.2022.9525186

Abstract

Dyspepsia and complaints related to upper gastro intestinal disorders are very common in primary care. Different disorders can present with similar symptoms with only subtle differences. Full evaluation of such patients is essential for the optimal management of disease. This case is about a middle aged man with delayed gastric emptying or gastroparesis with a chief complaint of nausea and bloating. Although the incidence of gastroparesis is small, many patients could be misdiagnosed due to lack of awareness amongst physicians and due to limited investigations. Gastroparesis should be kept in mind in patients presenting with upper gastrointestinal symptoms and disease specific management should be given.

Key words

Gastroparesis, delayed gastric emptying, vomiting, nausea, bloating, fullness, early satiety, Scintigraphic gastric emptying study

Case Report

45 year old male patient presented to the health center to request repeat medications. He was known to have hypertension and Dyspepsia. He was on 5 mg amlodipine along with 30 mg Lansoprazole which he was taking quite regularly. He was requesting to increase the dose of PPI further as he was still having gastrointestinal symptoms. He was a nonsmoker, slightly overweight with BMI of 29 and had central obesity.

He was lately trying to lose weight and had changed his diet. He was consuming more fiber and protein and less carbohydrates. He was also eating an increased proportion of fat to counter his need for carbohydrate food. He had also started drinking more fresh lemonade without sugar. He reported that the change in the diet had helped him lose 2 kg of weight in two weeks. But he was worried as his dyspepsia had become worse. He enquired if the dose of PPI could be increased further to counter his symptoms.

His symptoms were further explored in the clinic. His main complaint was nausea,; he had been sick on a couple of occasions, and there was also a feeling of fullness and bloating. He felt that the satiety was attained earlier than before. He was passing stools regularly with normal formed stools without blood or mucus.

Clinical examination was normal and there was no suggestion of intestinal obstruction. His temperature was 36.6 Celsius, Pulse rate was 72, blood pressure was 142/91 and O2 saturation was 98 percent on air. His last blood test showed HbA1c of 6.0 whereas renal and hepatic functions were normal. His total cholesterol was 5.9, HDL 0.9, and triglycerides were 5.1. On risk assessment using ASCVD risk his 10 year risk of having an ischemic event was 4.7 percent.

He was suspected to have some element of Gastroparesis. He was advised to reduce fiber intake, acidic food, and fatty food {1}; he was also counseled to increase oral hydration. He was also advised to stop Amlodipine 5 mg (calcium channel blocker) and instead was started on perindopril 5 mg. He was advised to take his Lansoprazole when needed instead of using it regularly. He was also prescribed metoclopramide 10 mg three times daily when needed, to be taken 15 minutes before food {2}.

The patient was followed up in two weeks in the general clinic when he reported significant improvement in his symptoms. The use of PPI was reduced in the first week and he had not used any PPI in the previous five days. Nausea had settled and there were no episodes of vomiting; the bloating was also settled. He was explained about the possibility of delayed gastric emptying and was given further information and leaflets. As his symptoms had improved, he declined to have any further investigations. He was referred to dietetics and was advised to start an exercise program to improve his health and blood parameter.

Gastroparesis is a syndrome of objectively delayed gastric emptying of solids in the absence of a mechanical obstruction {3}. Common symptoms are Nausea, Vomiting, Early or easy satiety, Bloating, and Weight loss {4}. It could be idiopathic or could be caused by Diabetes {5}. Other causes include; viruses, medications, post-surgical, Neurological diseases, and auto immune diseases. Medications such as; Narcotics, Alpha-2-adrenergic agonists (clonidine), Tricyclic antidepressants, Calcium channel blockers, Dopamine agonists, Muscarinic cholinergic receptor antagonists, Octeotide, Glucagon-like peptide-1 agonists (Exenatide or Liraglutide), Phenothiazines, and Cyclosporine could result in gastroparesis.

Exclusion of gastrointestinal obstruction is essential in evaluation of such patients. The gold standard investigation is Scintigraphic gastric emptying study {6} in which a patient is given diet and imaging is obtained at two hours and four hours to see the percentage of stomach emptying. Patients are categorized as positive for gastroparesis if more than 10 percent of stomach still contains food. Categorization can be made as mild (10 to 15 percent), moderate (15 to 35 percent), and severe (>35 percent).

Initial management includes increase in oral Hydration, dietary modification and control of blood glucose. The patient is advised to consume a diet low in fiber, acid, fat and spice; carbonated drinks are discouraged. Any causative medication should also be reviewed and altered if possible.

If symptoms persist after dietary change, pharmacological treatment can be initiated. Metoclopramide 10 mg three times daily can be used, taken 15 minute before food. Another option is cautious use of domperidone 10 mg three times daily. ECG monitoring is essential as it can cause QT prolongation and arrhythmias {7}. It should only be used cautiously in selective patients. Domperidone is discontinued in some countries due to its potential adverse effects. Erythromycin is also known to increase gastric motility and can be used in the dose of 40 -250 mg in liquid form up to three times daily before meal for four weeks {8}.

Resistant cases may need interventions such as; decompression and enteral feeding, total parenteral nutrition, and gastric stimulation {9}. Surgical intervention

is reserved for refractory causes and procedures such as; surgical enterostomy, gastrostomy, jejunostomy and pyloroplasty can be undertaken.

Conclusion

Gastroparesis or delayed gastric emptying can present with upper gastrointestinal symptoms. It can be confused with gastrointestinal obstruction or gastritis. The symptoms can be worsened by certain diet and medications . Although the incidence of gastroparesis is reported low in the literature, many cases could have been undiagnosed. Gastroparesis should be kept in mind in managing chronic disease patients presenting with upper gastrointestinal symptoms and disease specific dietary advice must be given. Resistant cases can be referred to secondary care for definitive diagnosis where pharmacological, adjuvant and surgical treatment can be considered {10}.

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