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Case Report

Abdominal Pain: A Deceiving Symptom in Patients with Diabetic Gastroparesis

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Introduction

Overt diabetic gastroparesis is a rare long term complication of diabetes, probably resulting from autonomic neuropathy of vagus nerve. Diabetic gastroparesis leads to delayed gastric emptying which impedes glucose absorption into blood, causing unpredictable glucose levels. Abdominal pain is usually an associated symptom, but in rare cases it can present as the predominant symptom.

Case Description 1

A 29-year-old male with Past History of type 1 Diabetes Mellitus for 16 years, poorly controlled (Hba1c- 9%) presented with gradually worsening mid epigastric abdominal pain for 3 weeks associated with weight loss (30 pounds), nausea and vomiting. Abdominal examination was positive for a succession splash in addition to mid epigastric tenderness. His blood glucose on arrival was 178 with urine and blood negative for ketones. Abdominal x-ray and Ct with contrast were negative. Upper GI Endoscopy was positive for mild gastritis. Patient's pain increased with heavy meals. His celiac panel was negative. Finally, he underwent a gastric emptying scan which showed 85% retention after 4 hours.

Case Description 2

A 33-year-old female was admitted with a similar chief complaint of severe abdominal pain in the epigastric region for the last 4 months which was associated with nausea and vomiting. She had past medical history of type 1 diabetes mellitus for 18 years, poorly controlled (Hba1c- 8.4%) with associated nephropathy and retinopathy. Labs not suggestive of Diabetic Ketoacidosis. She underwent imaging studies to rule out an obstruction and upper GI Endoscopy for any other pathology. Eventually, gastric emptying study was performed and a final diagnosis of gastroparesis was established.

Discussion

Most common presenting symptoms of gastroparesis are nausea (93%), vomiting (68%-84%), abdominal pain (46%-90%), early satiety (60%), post prandial fullness (56%-74%), bloating (75%) and in severe cases, weight loss (34%- 56%). The initial diagnostic approach for these patients is to rule out bowel ischemia, Diabetic Ketoacidosis, infection, perforation, ulceration and obstruction. If investigations do not reveal any significant etiology, gastric emptying study is performed to confirm the diagnosis. Gastroparesis severity, quality of life, and depression are worse with moderate-severe pain (P≤0.008) [1].

Conclusion

Severe abdominal pain is prevalent in gastroparesis [2], impairs quality of life, and is associated with idiopathic etiology, and opiate use. Pain is predominant in one-fifth of gastroparetics. Predominant pain has at least as great an impact on disease severity and quality of life as predominant nausea and vomiting. Treatment options include patient education and diet modification, pro kinetic agents, Gastric Electrical Stimulation, Surgical Procedure (gastrostomy, jejunostomy, pyloroplasty, gastrectomy). These options are not definitive, therefore, there is a wide scope for research in such

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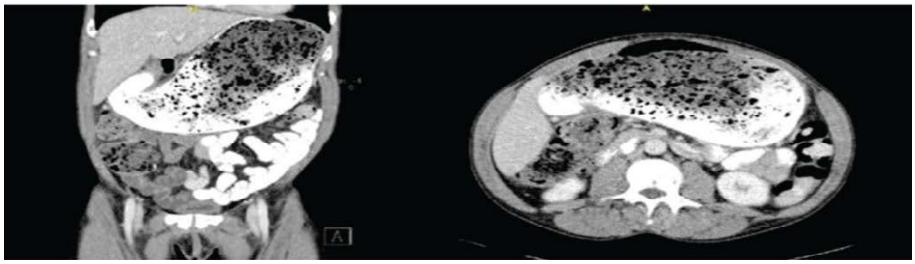

Figure 1: CT Scan of abdomen and pelvis showing severe gastric distention with abundant retained heterogenous material.

cases to alleviate pain and improve the quality of life in these patients. Both patients had repeated hospitalisations secondary to abdominal pain. They were tried on prokinetics and given the option for Gastric Electric stimulation. Despite a multi-disciplinary approach their symptoms did not improve and they succumbed to their multiple co-morbidities. This case series highlights that severe abdominal pain could be a predominant symptom of gastroparesis in patients with diabetes [3] (Figure 1).

References

1. Cherian D, Sachdeva P, Fisher RS, et al. Abdominal pain is a frequent symptom of gastroparesis. *Clin Gastroenterol Hepatol.* 2010;8(8):676-681.
2. Hasler WL, Wilson LA, Parkman HP, et al. Factors related to abdominal pain in gastroparesis: contrast to patients with predominant nausea and vomiting. *Neurogastroenterol Motil*. 2013;25(5):427-438.
3. Horowitz M, Wishart JM, Jones KL. *et al.* Gastric emptying in diabetes: an overview. *Diabet Med.* 1996;13:S16-S22.