

Introduction

Bradycardia is defined as a heart rate of less than 60 beats per minute and is a common presentation in the emergency department. It is most commonly linked to cardiac-related disorders. This case report highlights a rare case of bradycardia attributed to gastrocardiac syndrome.

Case Description

A 52-year-old Malay gentleman with no known medical illness presented with severe epigastric pain, described as sudden onset, colicky in nature, and non-radiating. He denied any chest pain or shortness of breath. His vital signs were normal. Abdominal examination revealed tenderness over the epigastric region. Cardiovascular examination was unremarkable. ECG revealed sinus bradycardia with a heart rate of 45 beats per minute. Routine blood tests, including Troponin I, were within normal range. He was given IV Atropine 0.5 mg in the ED, and his heart rate subsequently increased to 70 beats per minute. The patient was admitted to the ward, and subsequent OGDS showed evidence of Grade I hiatal hernia with bile gastritis. He received standard treatment for gastritis, which led to resolution of the bradycardia.

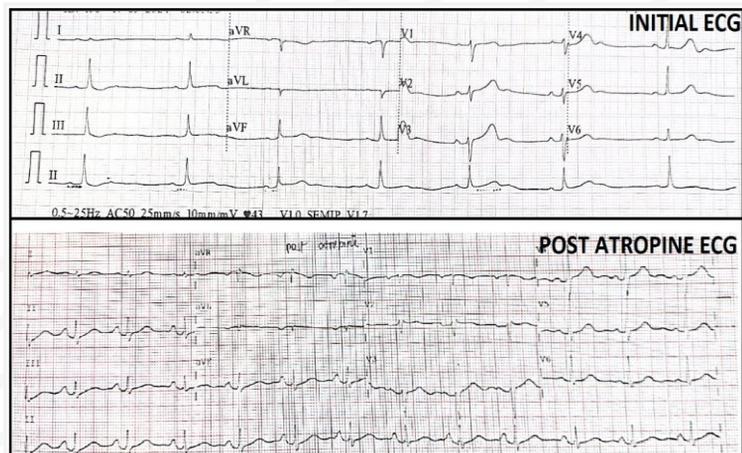
References

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Keywords : gastrocardiac, bradycardia, hiatal hernia, vagus nerve

Discussion

Gastrocardiac Syndrome is defined as cardiovascular manifestations stimulated by gastrointestinal triggers such as mechanical, inflammatory, or hormonal factors. Mechanical compression via hiatal hernia and gastric inflammation can cause stomach distension that stimulates the vagus nerve, which traverses the diaphragm between the chest and the abdomen. This stimulation can lead to reduced firing of the sinoatrial node, manifesting as bradycardia. Gastric decompression with proton pump inhibitors may address the inflammatory and mechanical irritation of the esophageal plexus, leading to the resolution of bradycardia. Several case reports have demonstrated the correlation between gastrointestinal symptoms and vagal nerve stimulation-induced bradycardia.



Conclusion

This case underlines the importance for physicians to consider non-cardiac causes when confronted with unexplained bradycardia in patients without other cardiac symptoms. Understanding the possible association between bradycardia and gastrointestinal disorders could help determine the correct diagnosis and treatment, as well as preventing unnecessary cardiac assessments, especially in resource-limited emergency settings.

