

An Unusual Cause of Upper Gastrointestinal Bleed: Temporary Epicardial Pacing Wire

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Introduction

- A temporary epicardial pacing wire (TEPW) is frequently placed during cardiac surgery to treat postoperative arrhythmias.
- Gastrointestinal (GI) complications from TEPW are rare, and only a few have been described.
- Here we describe a rare case of upper GI bleed from TEPW traversing the stomach.

Case Description

- A 76-year-old male with a past medical history of coronary artery disease (CAD) status posts two stents, myocardial infarction, chronic kidney disease, hypertension, and stroke presented to the emergency department with chest pain.
- The patient had a non-ST-elevation myocardial infarction (NSTEMI); coronary angiography showed multivessel CAD.
- He underwent coronary artery bypass grafting (CABG), following which the patient had 1200cc dark blood drained through the nasogastric tube.
- The patient underwent esophagogastroduodenoscopy (EGD), which showed a significant amount of fresh blood (Fig. 1) and a suspicious linear object entering and exiting the gastric body (Fig. 2).
- He underwent a celiac and left gastric artery angiogram with embolization of the injured branch of the left gastric artery.
- The foreign body in the stomach was the right ventricle TEPW, which was removed. Repeat EGD showed no active bleeding.

Discussion

- Epi-myocardium of the atria and ventricle are common sites for TEPW placement during cardiac surgery.

Images

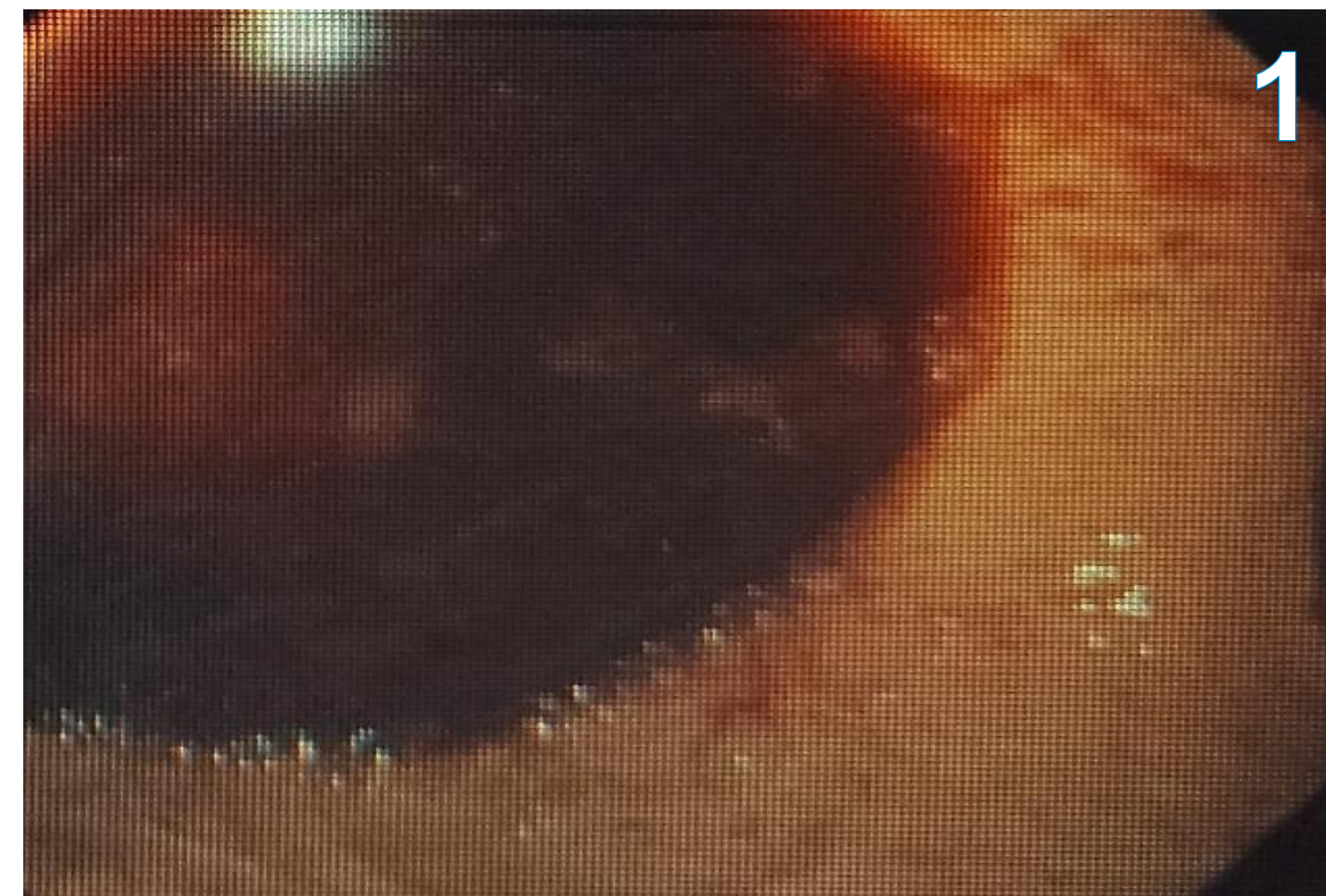


Figure 1: EGD showing pooled blood in stomach giving definitive evidence of upper GI bleed

Figure 2: EGD showing Pacemaker wire traversing the stomach

- They are tunneled to the outside through the left subcostal margin. Poor sensing or capture, dislodgement, or retention are the most common complications.¹
- Other complication include bleeding from the right ventricular laceration with tamponade, avulsion of a side branch from a saphenous vein coronary bypass graft, and perforation of the superior epigastric artery.¹
- GI complications from this procedure are rare.
- Few reports of bowel perforation presenting as acute abdomen have been described.²⁻⁵
- A case of dyspepsia due to gastric wall injury caused by the migration of TEPW into the gastric cavity has been described by Aksakal et al..⁶
- To our knowledge, no case of upper GI bleed secondary to pacemaker wire misplacement has been described.

Conclusion

- Post-cardiac surgery patients are usually in the ICU.
- Therefore, if signs of GI bleeding are present in the postoperative period, EGD should be performed for diagnostic purposes.
- However, rarely displaced pacemaker wire may be one of the causes of GI bleeding, which should be on the physician's radar.

References

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