

The Role of Immediate Pacemaker Placement in a Trifascicular Heart Block Initially Presenting as Syncope

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Background

- Trifascicular block (TFB) is a combination of a right bundle branch block (RBBB), left anterior fascicular block (LAFB) or posterior fascicular block (LPFB) and an atrioventricular block (AVB). Its progression to complete heart block (CHB) is not well known.

Case Description

76-year-old man with a past medical history of hypertension and prostate cancer presents after an episode of syncope with micturition. Patient denied lightheadedness, chest pain, shortness of breath, or palpitations prior to the event. Upon waking, the patient reported being diaphoretic and light-headed. He endorsed two previous syncopal events within the past 5 years. EMS was called and the patient was initially found to have complete heart block (CHB). Electrocardiogram (EKG) upon arrival to the hospital revealed a trifascicular heart block.

Figure 1A) LIFENET EKG significant for CHB

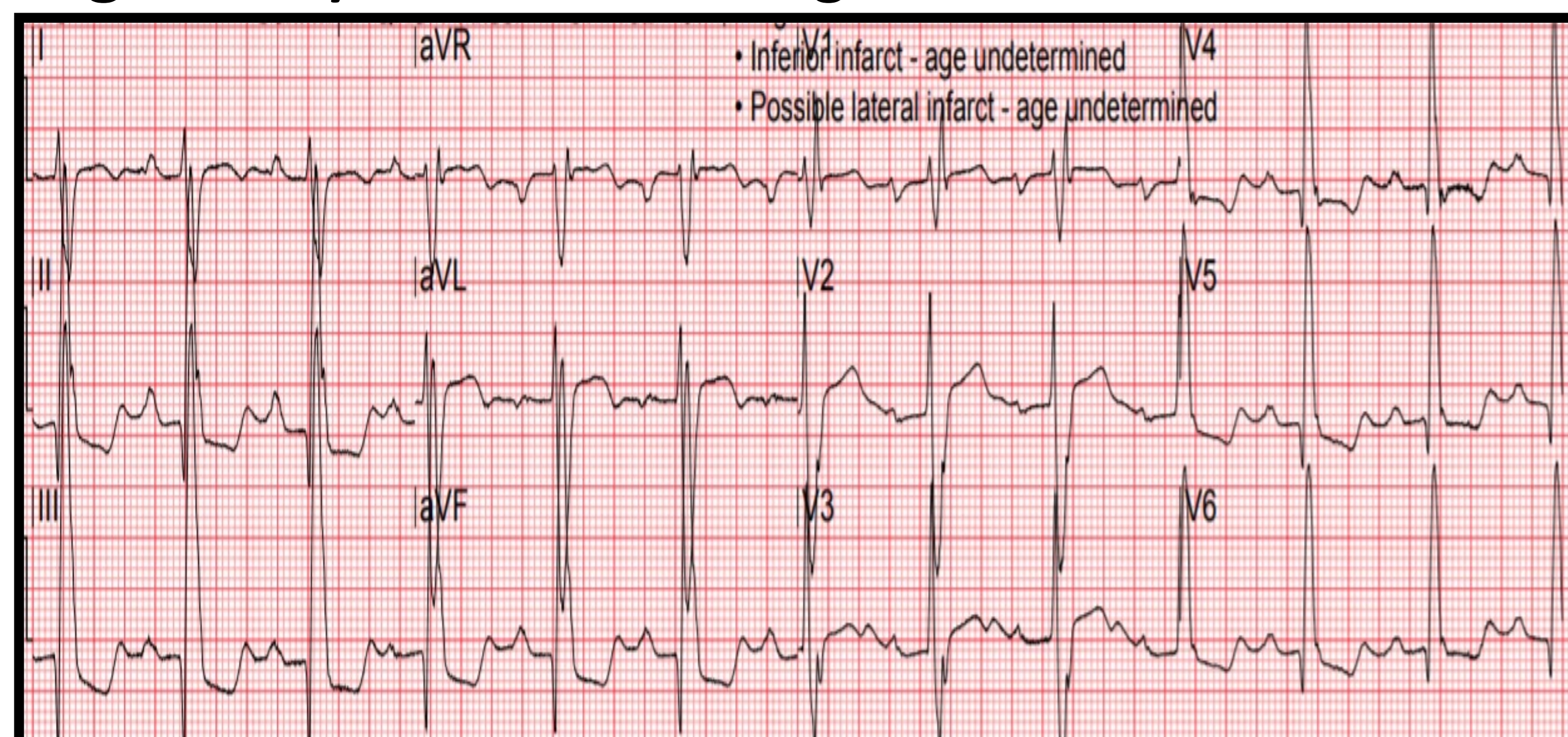
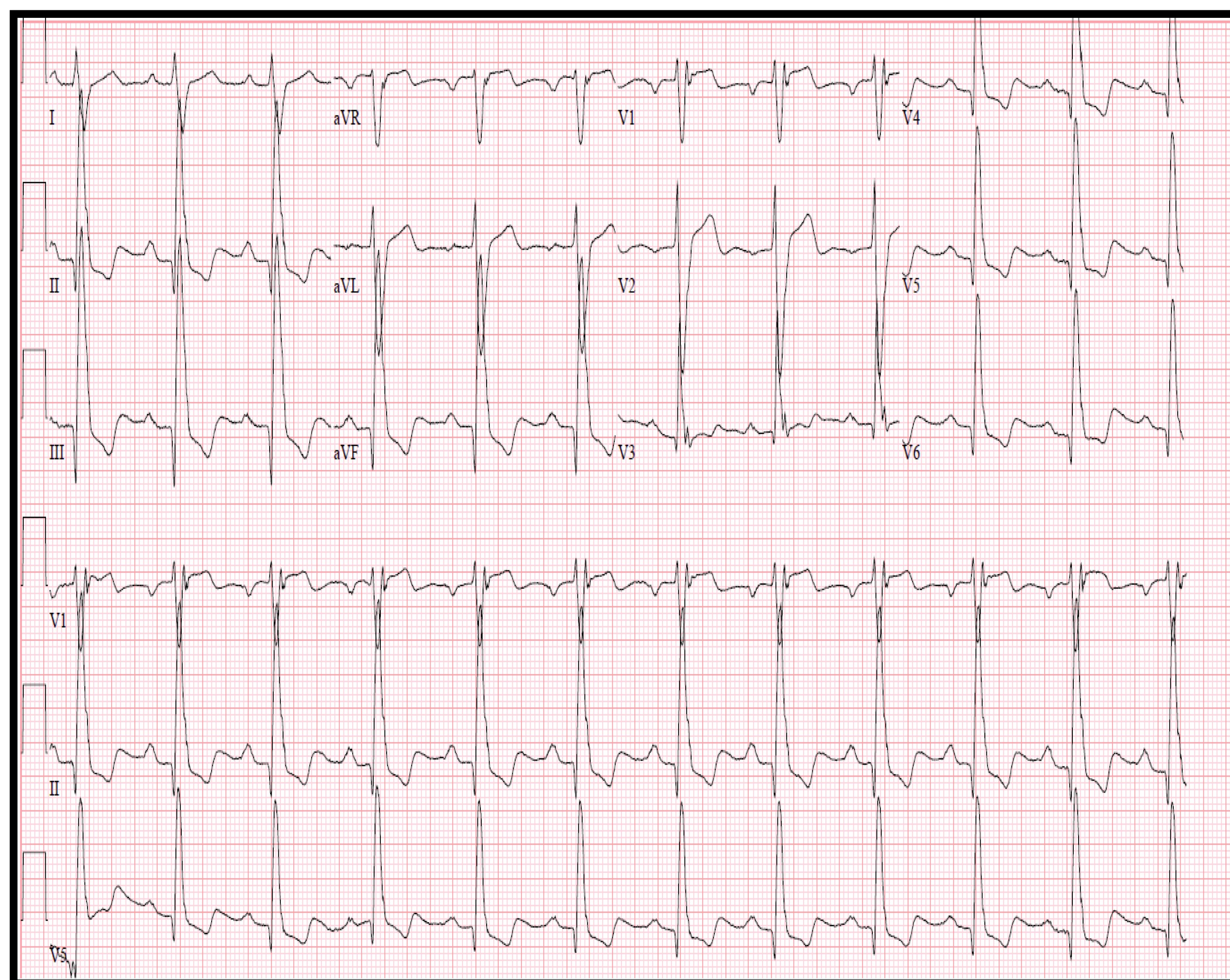


Figure 1B) Admission EKG no longer with CHB but showing TFB



Decision Making

Patient was immediately admitted to telemetry and a dual chamber pacemaker was placed the following day. Patient was discharged home with no complications.

Conclusion

A high index of suspicion should be held for TFB in patients with recurring syncope. The timing of pacemaker implantation in TFB should be tailored to the patient's individual presentation with immediate placement in those that are symptomatic, which can be lifesaving.

