

Management of PVC's in an Urgent Care Setting

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Introduction

- Premature Ventricular Contractions are a common heart arrhythmia that can lead to many cardiac complications in a patient.
- Premature Ventricular Contractions, or PVC's, are premature beats that arise from an ectopic focus within the ventricles
- They are typically cause from abnormal automaticity, reentry, or triggered activity.
- Most people are asymptomatic and do not know they have them.
- When seen in Urgent Care with symptoms, such as palpitations, there needs to be proper evaluation and management of these patients.

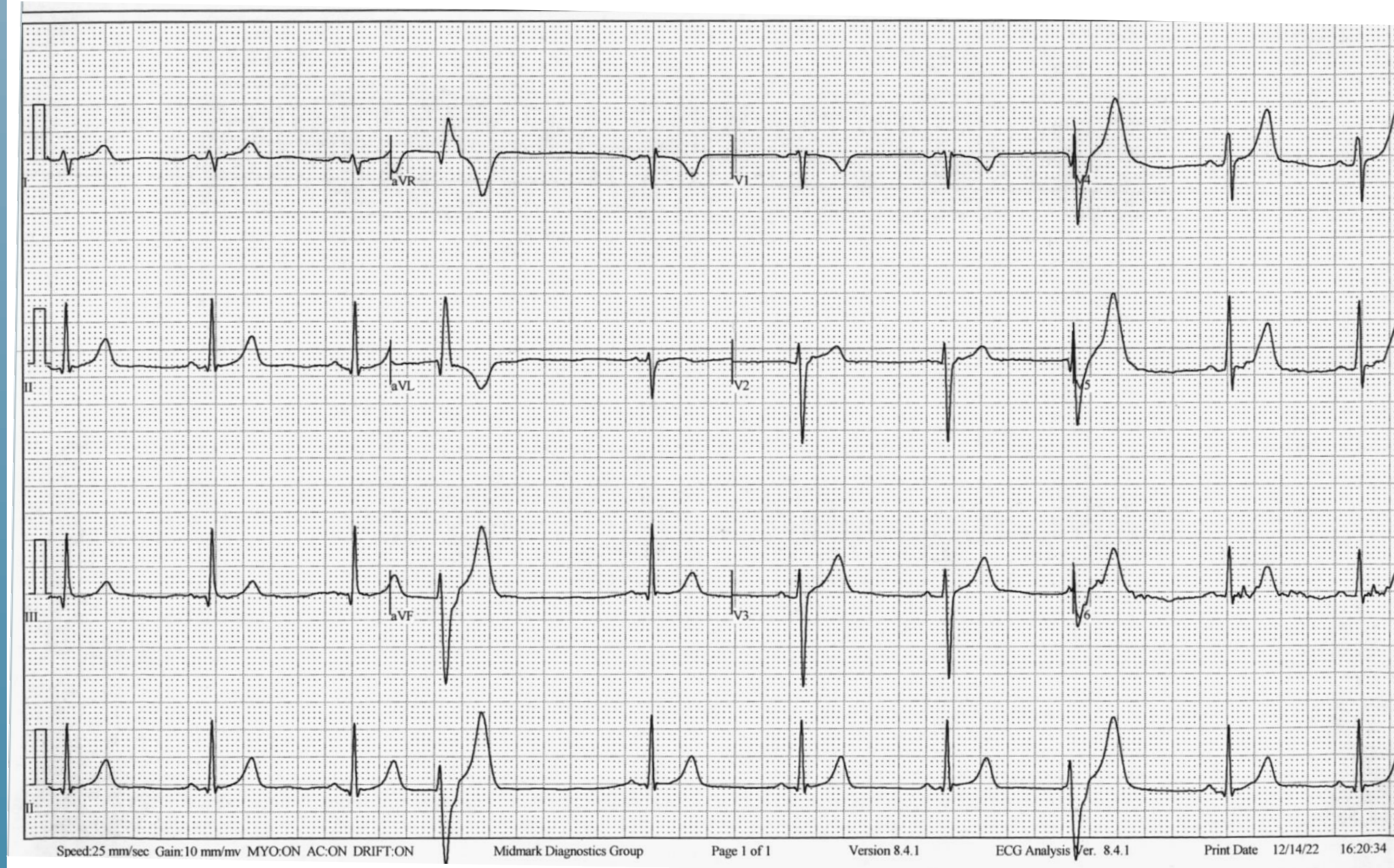
Case History

- 42 year old M with no PMH, on no medications, presents to UC with "palpitations and feeling heartbeat stronger" x 3-4 days.
- Pt reports that 4 days ago he was resting at home when he had an episode of "feeling his heartbeat stronger" with some palpitations.
- It subsided on its own and since then he has had episodes of it on and off.
- The episodes come randomly and nothing he does makes it better or worse.
- No history of hypertension, known arrhythmias, coronary artery disease.
- Denies current chest pain, SOB, diaphoresis, dizziness, syncope, pre-syncope, fever, chills, recent covid diagnosis, nausea, and vomiting.

Case Physical Exam

- Vitals
 - Temp - 96.6 degrees F
 - HR - 75 beats per minute
 - BP - 116/75 mmHg left arm sitting
 - RR - 16 breaths per minute
 - Oxygen - 98%
- Significant physical exam findings include:
 - regular heart rate,
 - S1 and S2 noted with some irregular heartbeats every few beats,
 - S2 splitting every few heartbeats.

EKG



Case Diagnosis and Treatment Plan

- EKG Reading:
 - Rate 57
 - Sinus Bradycardia with PVCs every 3 beats.
 - Axis normal.
 - No ST elevations or depressions present.
 - Intervals normal. PR interval normal, QRS normal in most beats, but wide with PVCs.
 - Good Q wave progression.
- Diagnosis: Premature Ventricular Contractions.
- Given that the patient was in stable condition, he did not immediately need to go to the ED.
- A cardiology referral was put in the system for the patient so that he could follow up with a cardiologist in the next few days for further evaluation and management.
- Discussed with patient to go to ER if any of the following occur:
 - worsening symptoms that will not resolve, chest pain develops, altered mental status, dizziness, syncope, or pre-syncope.

Discussion

- PVC's are seen in approximately 1% of routine 12-lead ECGs of 30-60 seconds, and up to 6% of 2 minute ECGs.
- Up to 80% of apparently healthy people have occasional PVCs.
- Management of these patients depends on if initial evaluation indicates a high or low risk of complications.
- Complications could include cardiomyopathy, heart failure exacerbation, and ventricular tachyarrhythmias.
- Most patients will need ambulatory monitoring for diagnostic or prognostic purposes, and high risk patients might need an echocardiogram.
- For low risk patients, most will require medication and/or ablation, but will not need to go to the ED if they are stable.
- For high risk patients, beta blockers, catheter ablation, anti-arrhythmic therapy, or implantable ICD are all possible treatment options, so should be considered for the ED, especially if they are unstable.

References

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