

AEROMED OUTREACH

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UPCOMING OUTREACH ACTIVITIES

- **Polk County Fire/EMS Free Symposium May 22-24 from 8am-4pm. Registration info at www.polk-county.net/EMS-Symposium**
- **Aeromed Community Education Session June 1st at 0900. Contact Jennifer Mefford at jmefford@tgh.org for more information.**

MANATEE COUNTY 10TH ANNIVERSARY SAFETYFEST

Aeromed recently participated in Manatee County Public Safety Department's 10th anniversary Safetyfest. This community event included Emergency Medical Service, Emergency Communications Center, Emergency Management, Animal Services, Marine Rescue, Community Paramedicine and Aeromed. Each division talked with community members about the services they provide, and had their emergency vehicles on display. Information booths and staff meet and greets were also

available. Safe Kids Florida Suncoast offered child car seat inspections and "Pepper the Prepper Puppy" was introduced to community attendees. "Pepper" will teach children about the importance of safety preparedness.



PHYSICIAN ARTICLE

EKG INTERPETATION:

You are dispatched to a patient having chest pain. You arrive on the scene to find a 58 year-old male awake and alert, complaining of chest pain that started one hour ago. The patient is sweaty and states that he's been vomiting. He tells you that he has a history of high

blood pressure and non-insulin dependent diabetes. You administer aspirin and nitroglycerin per protocol. You place an IV and attach the patient to the monitor after taking vital signs, which are normal. You then obtain a 12-Lead EKG that can be viewed at the end of this article. You interpret

the tracing and become concerned about anterior ischemia. Your partner states that the patient does not have STEMI, but likely has acute coronary syndrome. You decide transport to a local hospital that does not have a cardiac catheterization laboratory. You administer more nitroglycerin with-

PHYSICIAN'S ARTICLE CONTINUED

out improvement in symptoms. Care is transferred to the local ED staff uneventfully and you return in service. A few hours later you return to that hospital with another patient and the staff informs you that shortly after you dropped off the male with chest pain, he developed ventricular fibrillation. The staff achieved return of spontaneous circulation (ROSC). He was flown to another hospital for evaluation for percutaneous coronary intervention (PCI).

This is a difficult case that represents acute myocardial infarction (MI). The EKG presented in this case shows an isolated posterior STEMI. We have discussed this in a previous article, but I feel it is most certainly worth re-viewing.

Mastering EKG interpretation, among other skills, involves pattern recognition. When we see obvious STEMI we recognize a specific pattern. With practice, this should be

the case for isolated posterior STEMI. The pattern of posterior STEMI is seen as a tall R-wave, ST-depression and upright T-wave in leads V1-V3. This can be confused as anterior ischemia. When you think the patient has anterior ischemia, take a step back and consider posterior STEMI. Posterior infarction accompanies 15-20% of STEMIs, usually occurring in the context of an inferior or lateral infarction. Isolated posterior MI is less common (3-11% of infarcts). Isolated posterior infarction is an indication for emergent coronary reperfusion. However, the lack of obvious ST elevation in this condition means that the diagnosis is often missed.

If you suspect isolated posterior STEMI, consider obtaining an EKG with posterior leads (V7, V8 and V9). This is accomplished by moving the monitor's leads V4, V5 and V6 to the back. Place the cable labeled "V5" at the tip of the left scapula

and the cables labeled "V4 and V6" to the left and right of "V5", respectively. All other lead placements remain the same. When you obtain the tracing, what is labeled as V4, V5 and V6 on the paper are actually V7, V8 and V9 and should be relabeled as such. These are your posterior leads. Posterior infarction is diagnosed based on the presence of ST segment elevation >0.5mm in leads V7-9.

Remember, isolated posterior STEMI is rare but it certainly occurs. In a patient with active chest pain and concern for anterior ischemia on EKG think of posterior STEMI and get posterior leads. This may change your management, destination and may save

the patient's life by getting them to a PCI center faster. We develop pattern recognition skills as we practice EKG's. This is a pattern we must be able to recognize and understand. This is an example of how we as EMS providers can have a huge impact on the care of the critically ill patient.

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