



MIAMI TOWNSHIP FIRE & EMS CLERMONT COUNTY, OHIO *CARDIAC ARRHYTHMIA PROTOCOLS*



NARROW COMPLEX TACHYCARDIA (STABLE)

Historical Findings

1. Age > 15.
2. Ascertain if the patient has a history of Wolff Parkinson White syndrome.
3. Ascertain if the patient has a history of Atrial Fibrillation/Flutter.

Physical Findings

1. **No signs** of rate-related cardiovascular compromise:
 - A. Acute altered mental status.
 - B. Ongoing chest pain.
 - C. Severe shortness of breath.
 - D. Presyncope or syncope.
 - E. Systolic blood pressure \leq 90 mm/Hg.

EKG Findings

1. Rate above 130 beats/minute.
2. Regular rhythm.
3. Narrow QRS (\leq 0.12 seconds or 3 little blocks).
4. Absent P waves.

Protocol

1. Initiate contact; reassure, and explain procedures.
2. Assess and secure the patient's airway and provide oxygen per the airway, oxygen and ventilation protocol.
3. Perform patient assessment, obtain vital signs and begin cardiac monitoring.
4. Acquire a 12 Lead ECG and maintain cardiac monitoring at all times.
5. Initiate IV access with a saline lock or 0.9 % normal saline KVO.



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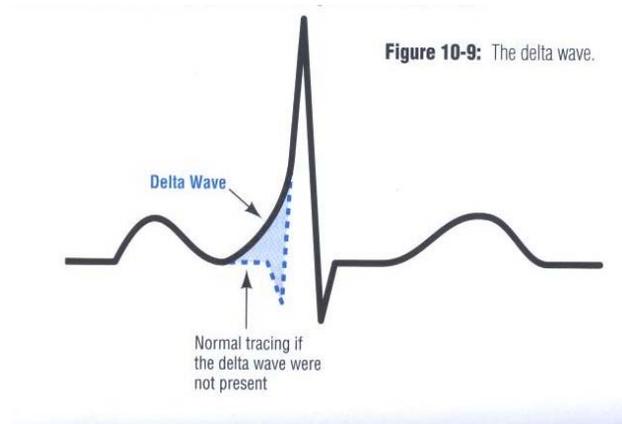
6. If the rhythm is clearly atrial fibrillation, atrial flutter, or multifocal atrial tachycardia, vagal maneuvers and adenosine are not indicated. Proceed to number 11 of this protocol.
7. If the rhythm is a regular narrow complex tachycardia (SVT), attempt vagal maneuvers.
8. Administer adenosine (Adenocard) 6 mg rapid IV push followed by a 10 cc flush of 0.9 % normal saline.
 - A. If adenosine (Adenocard) slows AV conduction enough to determine that the underlying rhythm is atrial fibrillation, atrial flutter, or multifocal atrial tachycardia (MAT), withhold additional adenosine and go to number 11 of this protocol.
9. If a regular narrow complex tachycardia (SVT) persists after first dose of adenosine (Adenocard), administer adenosine (Adenocard) 12 mg rapid IV push followed by a 10 cc flush of 0.9 % normal saline.
10. If a regular narrow complex tachycardia (SVT) persists after the second dose of adenosine (Adenocard), administer adenosine (Adenocard) 12 mg rapid IV push followed by a flush of 0.9 % normal saline.



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11. If the rhythm is atrial fibrillation, atrial flutter, or multifocal atrial tachycardia:
- A. Administer diltiazem (Cardizem) 20 mg slow IV over 2 minutes if the above rhythms are present with rapid ventricular response ≥ 130 . The goal of administering diltiazem (Cardizem) is to control the ventricular rate, however conversion to sinus rhythm can occur.
 - i. Withhold or discontinue diltiazem (Cardizem) for the following:
 1. Systolic blood pressure ≤ 100 mmHg. ****SEE NOTES****
 2. Ventricular rate ≤ 100 .
 3. Currently taking digoxin (Lanoxin, Digitek)
 4. Wolff Parkinson White (WPW) syndrome. If the patient has a history of WPW, delta waves are present or the 12 Lead algorithm identifies WPW do *not* administer diltiazem (Cardizem). WPW is defined as:
 - a. Shortened PR interval (<0.12 sec) with normal P wave.
 - b. Wide QRS complex (≥ 0.11 sec).
 - c. Delta waves (see figure 10.9 & 10-10)
 - d. See example of 12 Lead ECG with WPW (Figure 10.11)
 - B. If no change in ventricular rate is observed 15 minutes after initial dose, administer diltiazem (Cardizem) at 25 mg slow IV over 2 minutes.





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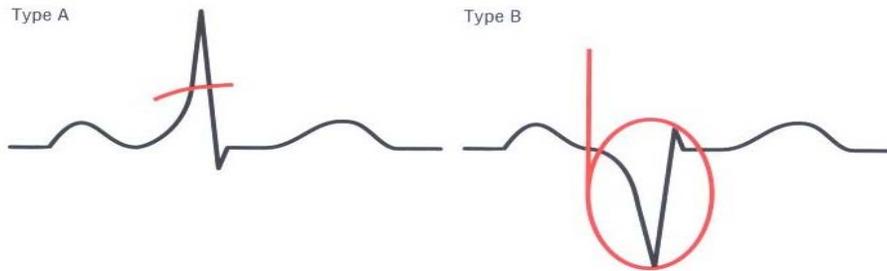


Figure 10-10: WPW Syndrome, Types A and B.

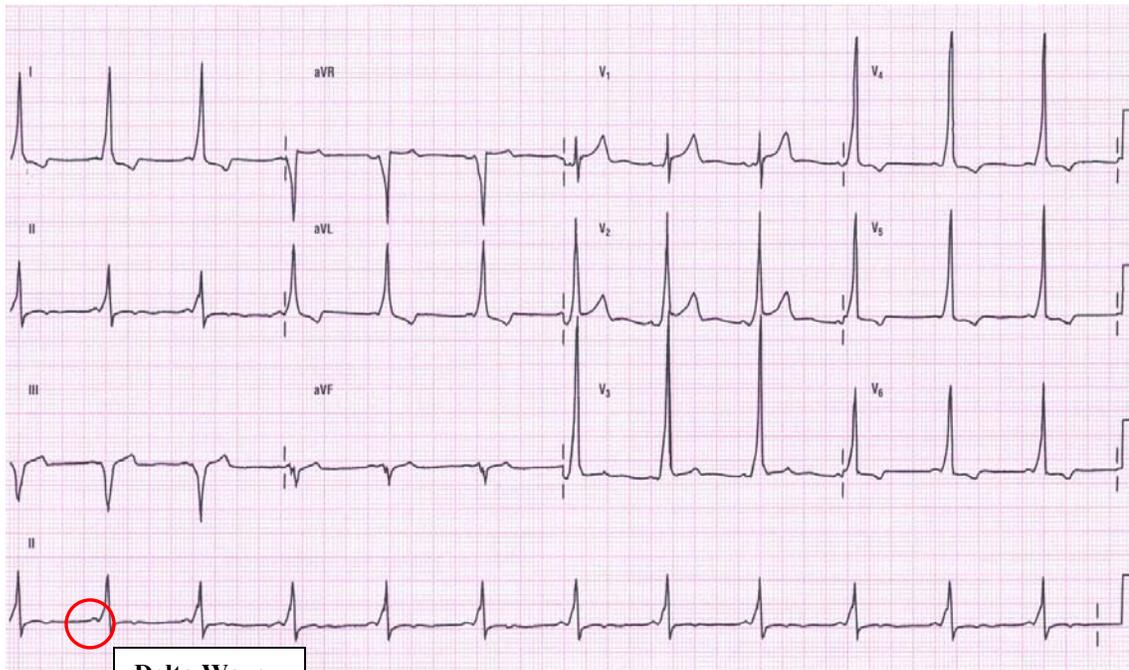


Figure 10.11

12. If at any time the patient deteriorates and displays signs of rate-related cardiovascular compromise move to the unstable tachycardia protocol for synchronized cardioversion.

Notes:

- 1) Do not administer diltiazem (Cardizem) if the systolic blood pressure is ≤ 100 mm/hg at any time during the patient encounter. If a fluid bolus is administered to increase the systolic blood pressure ≥ 100 mm/hg, diltiazem is still contraindicated due to the potential for refractory hypotension.