Torsade de pointes is an uncommon and distinctive form of polymorphic ventricular tachycardia (VT) characterized by a gradual change in the amplitude and twisting of the QRS complexes around the isoelectric line (see the image below).

Torsade de pointes, often referred to as torsade, is associated with a prolonged QT interval, which may be congenital or acquired.

Torsade may degenerate into ventricular fibrillation.

Supportive Care

1. If no pulse start CPR, push hard and fast. ≥2 inches, ≥100/min.
2. Give oxygen, attach monitor/defibrillator, obtain IO/IV access.
3. Medical Supportive Care Protocol.

ALS Level 1

1. If patient is in cardiac arrest with torsades de pointes then treat as VF/pulseless VT: except give Magnesium Sulfate as the initial medication.
2. Magnesium Sulfate Dosage: 2 gm over 2-3 minutes. (DO NOT run faster than 1 gram per minute.)

Magnesium Sulfate: Draw up 1 gram in a 20cc syringe. Fill remaining 20cc syringe with D5W (20cc = 1 gram). Push 20cc solution (1 gram) IV over at least 1 minute. If more than 1 gram is required, repeat the process.

If any of the below occur during Magnesium Sulfate infusion, stop infusion:

- Hypotension
- respiratory paralysis
• decreased cardiac function
• pulmonary edema
• loss of patella (knee) reflexes

ALS Level 2 (Physician authorization required)

1. Consider termination of resuscitation.

Notes

Push hard & fast (100/min), ensuring full chest recoil, and minimizing interruptions in chest compressions; change compressor every 2 minutes.

Avoid hyperventilation; perform CPR ventilating 8-10 breaths/minute if advanced airway utilized.

If treatable causes are identified, narrow QRS complex PEA is associated with much higher resuscitation rates than either asystole or wide QRS complex PEA.

Search for treatable causes (6H’s & 6T’s)

Treatable Causes

<table>
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<th>Hypovolemia</th>
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<td>Hypoxia</td>
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<td>Hypoglycemia</td>
<td>Tension pneumothorax</td>
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<tr>
<td>Hypothermia</td>
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<tr>
<td>Hydrogen Ion (acidosis)</td>
<td>Trauma</td>
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Initial use of oropharyngeal airway and bag-valve-mask is acceptable with advanced airway (ETT tube and King Airway) deferred until a suitable time.