



1. The heart rate of this dysrhythmia is \_\_\_ beats per minute.

- A) 180
- B) 214
- C) 225
- D) 250

2. With this dysrhythmia the:

- A) PR intervals get progressively longer in duration in a cyclical manner
- B) ST segments are inverted
- C) QRS complexes alternate between upright deflections and downward deflections
- D) regularity is regular

3. This dysrhythmia is:

- A) multifocal atrial tachycardia
- B) torsades de pointes
- C) electrical alternans
- D) monomorphic ventricular tachycardia

Answer on page No. 56

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- Q.No.1 : C  
Q.No.2 : C  
Q.No.3 : B

### Torsade de pointes

Above ECG is from a asymptomatic patient on erythromycin, with marked QT prolongation on ECG. Patient was profoundly hypomagnesemic and hypokalemic. This shows an example of nonsustained torsade de pointes. With discontinuation of the erythromycin and aggressive repletion of the magnesium and potassium, no further torsade de pointes occurred and the patient's QT interval returned to normal.

Torsades de pointes, or simply torsades, is a French term that literally means "twisting of the points." It was first described by Dessertenne in 1966 and refers to a specific, rare variety of ventricular tachycardia that exhibits distinct characteristics on the ECG.

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. Torsade de pointes, is associated with a prolonged QT interval, which may be congenital or acquired. Torsade usually terminates spontaneously but frequently recurs and may degenerate into ventricular fibrillation.

In torsade, the morphology of the QRS complexes varies from beat to beat. The ventricular rate can range from 150 beats per minute (bpm) to 250 bpm.

The original report described regular

variation of the morphology of the QRS vector from positive to net negative and back again. This was symbolically termed torsade de pointes, or "twisting of the point" about the isoelectric axis, because it reminded the authors of the torsade de pointes movement in ballet. Most cases exhibit polymorphism, but the axis changes may not have regularity.

The definition also requires that the QT interval be increased markedly (usually to 600 msec or greater). Cases of polymorphous ventricular tachycardia in which the QT interval is not prolonged are treated as generic ventricular tachycardia. Torsade usually occurs in bursts that are not sustained.

Factors that are associated with an increased tendency toward torsades de pointes include:

- Familial long QT syndrome
- Class IA antiarrhythmics
- Class III antiarrhythmics
- Hypomagnesemia
- Hypokalemia
- Hypocalcemia
- Hypoxia
- Acidosis
- Heart failure
- Left ventricular hypertrophy
- Slow heart rate
- Female gender
- Hypothermia
- Subarchnoid hemorrhage

The first part of the report deals with the general situation of the country and the results of the survey. The second part deals with the results of the survey and the third part deals with the conclusions and recommendations.

1. General situation of the country

The country is a small island state with a population of about 100,000 people.

The economy is based on tourism and agriculture.

The climate is tropical and the weather is generally good.

The capital is located in the north of the island.

The main language spoken is English.

The currency is the dollar.

The population is growing at a rate of about 1% per year.

The life expectancy is about 75 years.

The literacy rate is about 80%.

The unemployment rate is about 10%.

The poverty rate is about 15%.

The health care system is generally good.

The education system is generally good.

The environment is generally good.

The social situation is generally good.

The political situation is generally good.

**Treatment:** Treatment is directed at withdrawal of the offending agent, infusion of magnesium sulfate, antiarrhythmic drugs, and electrical therapy as needed.

Because of the polymorphic nature of torsades de pointes, synchronized cardioversion may not be possible, and the patient may require an unsynchronized shock (or defibrillation).

The etiology and management of torsade

are, in general, quite different from those of garden-variety VT. In particular, the use of group IA antidysrhythmic drugs, which tend to prolong the QT interval, can have disastrous consequences in torsade. Differentiating between these entities, therefore, is critically important.

<b>Source of Support: Nil</b>	<b>Conflict of Interest: Nil</b>
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1. The first part of the report is a general introduction to the subject of the study. It discusses the importance of the study and the objectives of the research. It also provides a brief overview of the methodology used in the study.

2. The second part of the report is a detailed description of the study area. It includes information about the location of the study area, the population of the study area, and the characteristics of the study area. It also discusses the data sources used in the study.

3. The third part of the report is a detailed description of the study results. It includes information about the findings of the study, the conclusions drawn from the findings, and the implications of the findings. It also discusses the limitations of the study and the need for further research.

4. The fourth part of the report is a conclusion and recommendations. It summarizes the main findings of the study and provides recommendations for future research and policy. It also discusses the significance of the study and the contribution of the study to the field of study.