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DEPARTMENT OF CARDIAC TECHNOLOGY

PUZZLES FOR THE SUBJECT OF ADVANCED ECG, TMT AND 24 HRS AMBULATORY HOLTER AND BP RECORDINGS

Unit-3

- 1. What is the most common cause of ventricular premature beats (VPBs)?
- a) Electrolyte imbalances
- b) Atrial flutter
- c) Complete heart block
- d) Pulmonary embolism
- 2. Which ECG finding is characteristic of ventricular premature beats?
- a) Narrow QRS complex
- b) Wide QRS complex with abnormal morphology
- c) Sawtooth P waves
- d) Regular PR interval
- 3. What is a hallmark feature of supraventricular tachycardia (SVT) on an ECG?
- a) Wide QRS complex
- b) Narrow QRS complex
- c) Absent P waves
- d) Irregular ventricular rate





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| a) Atrial fibrillation | | | | | | | |
|---|--|--|--|--|--|--|--|
| b) Atrial flutter | | | | | | | |
| c) Ventricular tachycardia | | | | | | | |
| d) Sinus tachycardia | | | | | | | |
| | | | | | | | |
| 5. What is a common clinical symptom associated with atrial fibrillation? | | | | | | | |
| a) Regular pulse | | | | | | | |
| b) Palpitations | | | | | | | |
| c) Bradycardia | | | | | | | |
| d) Fixed heart rate | | | | | | | |
| | | | | | | | |
| 6. Which of the following is a typical ECG feature of ventricular tachycardia (VT)? | | | | | | | |
| a) Narrow QRS complex | | | | | | | |
| b) Monomorphic wide QRS complex | | | | | | | |
| c) Irregularly irregular rhythm | | | | | | | |
| d) Prominent U waves | | | | | | | |

4. Which arrhythmia is characterized by a "sawtooth" pattern on ECG?





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7. What is the primary treatment for unstable ventricular fibrillation? a) Beta-blockers b) Immediate defibrillation c) Calcium channel blockers d) Anticoagulation therapy 8. Which of the following is most likely to precipitate supraventricular tachycardia? a) Hypothyroidism b) Hyperthyroidism c) Hypokalemia d) Hypernatremia 9. In atrial flutter, what is the typical atrial rate? a) 60-100 beats per minute b) 150-200 beats per minute c) 250-350 beats per minute

d) 400-500 beats per minute



a) Presence of P waves

c) Ventricular tachycardia

d) Sinus arrhythmia

b) AV dissociation

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| c) Narrow QRS complex |
|---|
| d) Regular rhythm |
| |
| 11. What is a common trigger for ventricular premature beats? |
| a) Caffeine consumption |
| b) Hypoglycemia |
| c) Atrial hypertrophy |
| d) Chronic renal failure |
| |
| 12. Which arrhythmia is associated with an irregularly irregular rhythm on ECG? |
| a) Atrial flutter |
| b) Atrial fibrillation |

10. Which ECG finding differentiates ventricular tachycardia from supraventricular tachycardia with aberrancy?





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| 13. What is the most serious complication of untreated ventricular tachycardia? |
|--|
| a) Atrial fibrillation |
| b) Ventricular fibrillation |
| c) First-degree AV block |
| d) Sinus bradycardia |
| |
| 14. Which medication is commonly used to terminate supraventricular tachycardia? |
| a) Amiodarone |
| b) Adenosine |
| c) Lidocaine |
| d) Digoxin |
| |
| 15. What is a key ECG feature of atrial fibrillation? |
| a) Regular QRS complexes |
| b) Absent or fibrillatory P waves |
| c) Sawtooth flutter waves |

d) Wide QRS complexes



d) Lead V6

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| 16. Which of the following is a risk factor for developing atrial flutter? | | | | | | | | |
|--|--|--|--|--|--|--|--|--|
| a) Mitral valve prolapse | | | | | | | | |
| b) Pulmonary hypertension | | | | | | | | |
| c) Hypocalcemia | | | | | | | | |
| d) Aortic dissection | | | | | | | | |
| | | | | | | | | |
| 17. What is the primary difference between ventricular tachycardia and ventricular fibrillation? | | | | | | | | |
| a) VT is irregular, while VF is regular | | | | | | | | |
| b) VT is organized, while VF is chaotic | | | | | | | | |
| c) VT has narrow QRS, while VF has wide QRS | | | | | | | | |
| d) VT is benign, while VF is malignant | | | | | | | | |
| | | | | | | | | |
| 18. Which ECG lead is most useful for diagnosing atrial flutter? | | | | | | | | |
| a) Lead V1 | | | | | | | | |
| b) Lead II | | | | | | | | |
| c) Lead aVR | | | | | | | | |





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- 19. What is a common cause of ventricular tachycardia in patients with structural heart disease?a) Myocardial infarctionb) Hyperkalemia
 - c) Atrial septal defect
- d) Hypothyroidism
- 20. Which of the following is NOT a typical feature of supraventricular tachycardia?
- a) Rapid heart rate
- b) Narrow QRS complex
- c) Wide QRS complex
- d) Sudden onset and termination
- 21. What is the typical ventricular rate in untreated atrial fibrillation?
- a) 60-100 beats per minute
- b) 100-160 beats per minute
- c) 200-250 beats per minute
- d) 300-400 beats per minute



b) Regular atrial activity with fixed AV conduction ratio

c) Wide QRS complexes

d) Absent QRS complexes

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| 22. Which condition is most likely to cause polymorphic ventricular tachycardia? | |
|--|--|
| a) Long QT syndrome | |
| b) Atrial flutter | |
| c) Mitral stenosis | |
| d) Hyperthyroidism | |
| | |
| 23. What is the immediate management for a patient with symptomatic ventricular premature beats? | |
| a) Electrical cardioversion | |
| b) Beta-blocker therapy | |
| c) Pacemaker implantation | |
| d) Anticoagulation | |
| | |
| 24. Which of the following is a characteristic of atrial flutter on ECG? | |
| a) Irregularly irregular rhythm | |





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| 25. | What is a | potential | compl | lication | of atrial | fibrillation | ? |
|-----|-----------|-----------|-------|----------|-----------|--------------|---|
| | | | | | | | |

- a) Stroke due to thromboembolism
- b) Ventricular hypertrophy
- c) Complete heart block
- d) Sinus tachycardia

26. Which arrhythmia is most likely to be associated with a "chaotic" baseline on ECG?

- a) Ventricular tachycardia
- b) Ventricular fibrillation
- c) Atrial flutter
- d) Supraventricular tachycardia

27. What is a common underlying cause of ventricular premature beats in otherwise healthy individuals?

- a) Coronary artery disease
- b) Idiopathic causes
- c) Aortic regurgitation
- d) Pulmonary edema





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- 28. Which of the following is a key diagnostic criterion for ventricular tachycardia?
- a) Heart rate less than 100 beats per minute
- b) Sustained wide QRS complex rhythm
- c) Presence of flutter waves
- d) Regular P waves
- 29. What is the role of anticoagulation in the management of atrial fibrillation?
- a) To terminate the arrhythmia
- b) To prevent thromboembolism
- c) To slow ventricular rate
- d) To stabilize QRS complexes
- 30. Which maneuver is commonly used to terminate supraventricular tachycardia?
- a) Carotid sinus massage
- b) Defibrillation
- c) Pacemaker implantation
- d) Deep breathing exercises