Neoplasia Pathogenesis and Causes

Oncology · Answer Key · 10 Questions

1. What is a primary cause of neoplasia mentioned in the text?

A) Bacterial infections
B) Spontaneous genetic mutations
C) Nutritional deficiencies
D) Hormonal imbalances

2. UV radiation can lead to neoplasia by causing what type of damage?

A) Protein denaturation
B) Lipid peroxidation
C) DNA damage
D) Carbohydrate breakdown

3. What cellular repair mechanism can correct genetic mutations if the cell survives?

A) Apoptosis
B) The repair mechanism
C) Cellular division
D) Immunological surveillance

4. When do body mechanisms like NK and GTL cells fail to prevent neoplasia?

A) When mutations are minor
B) When the cell survives damage and mutations occur
C) When the immune system is overactive
D) When cells have no genetic mutations

5. Mutations that can lead to uncontrolled cell growth often occur in which types of genes?

A) Mitochondrial genes
B) Ribosomal genes
C) Proto-oncogenes and regulatory genes
D) Histone genes

6. What is a specific type of DNA damage caused by UV radiation mentioned?

A) Single-strand breaks
B) Double-strand breaks
C) Generation of pyrimidine dimers
D) Cross-linking of DNA strands

7. What can occur in transcription if there are errors?

A) Protein synthesis acceleration
B) Transcription errors
C) DNA replication enhancement
D) RNA degradation

8. What is a challenge when distinguishing between radiation and chemical carcinogens?

A) Their detection methods are too similar
B) Their effects on cells can be difficult to differentiate
C) Both are naturally occurring in the body
D) Their molecular structures are identical

9. What is the term for cells that have undergone transformation leading to neoplasia?

A) Normal cells
B) Differentiated cells
C) Transformed cells
D) Stem cells

10. The failure to repair DNA damage can lead to what?

A) Cellular dormancy
B) Apoptosis
C) Neoplastic transformation
D) Increased cell differentiation