TEST QUESTIONS

1. Myelodysplastic syndrome (MDS) is defined as
   a. a proliferative blood disorder.
   b. a blood disorder where the bone marrow doesn’t make enough healthy cells.
   c. an infectious blood disorder.
   d. none of the above.

2. Which type of leukemia can MDS transform to?
   a. CLL
   b. ALL
   c. CML
   d. AML

3. MDS is typically associated with
   a. age, post-chemotherapy/radiation treatment, and lifestyle factors.
   b. post-chemotherapy/radiation treatment and lifestyle factors.
   c. age and post-chemotherapy/radiation treatment.
   d. none of the above.

4. MDS typically affects which age group?
   a. newborns
   b. adolescents
   c. young adults
   d. elderly

5. MDS is challenging to diagnose because symptoms and findings can result from other disorders and it can also mimic other diseases and disorders.
   a. True
   b. False

6. Which disorder(s) tend to present similarly to MDS?
   a. megaloblastic anemia
   b. parvovirus infection
   c. autoimmune diseases
   d. all of the above

7. MDS is caused by
   a. proliferation of stem cells.
   b. infections in stem cells.
   c. mutations in stem cells.
   d. none of the above

8. Which test(s) are performed in an effort to make an accurate diagnosis of MDS?
   a. CBC
   b. Bone marrow aspirate
   c. Bone marrow biopsy
   d. all of the above

9. Which studies are performed on a bone marrow specimen to diagnose MDS?
   a. cyto genetic studies and morphologic studies only
   b. cyto genetic studies, flow cytometry, morphologic studies, and molecular genetic studies
   c. cyto genetic studies and molecular genetic studies only
   d. flow cytometry and morphologic studies only

10. When assessing dysplasia in the blood and bone marrow, what finding is diagnostic of MDS?
   a. More than 10 percent of all cells in one cell line are dysplastic.
   b. More than 30 percent of all cells in one cell line are dysplastic.
   c. More than 60 percent of all cells in one cell line are dysplastic.
   d. More than 75 percent of all cells in one cell line are dysplastic.

11. In addition to assessing dysplasia, what other finding on a blood or bone marrow smear is important in identifying different types of MDS?
   a. the number or eosinophils.
   b. the number of platelets.
   c. the number of lymphocytes.
   d. the number of blasts.

12. What scoring system is used by pathologists to determine the severity of a patient’s MDS?
   a. IPMS
   b. IIIPS
   c. IPSS
   d. IPPS

13. When a pathologist identifies morphologic dysplasia, a good practice is to present the case to a Tumor Board so the diagnosis can be made using a multidisciplinary approach.
   a. True
   b. False

14. Which organizations have collaborated to build a comprehensive, multidisciplinary, case-based curriculum for healthcare professionals?
   a. ASCP and ASH
   b. ASH and CAP
   c. ASH and The France Foundation
   d. ASCP, ASH, and The France Foundation

15. What was the main type of specimen of concern in the study performed by M. Teshima and his students?
   a. clotted blood specimens
   b. aged blood specimens
   c. aged urine specimens
   d. room temperature blood specimens

16. According to the Teshima study, by what day after specimen collection was damage to blood cells so severe that a meaningful differential count was no longer possible?
   a. 2
   b. 4
   c. 6
   d. 8

17. Which cell line showed the most obvious morphological changes two days after specimen collection?
   a. monocytes
   b. lymphocytes
   c. granulocytes
   d. platelets

18. After two days of specimen collection, what was found regarding platelets?
   a. Average number seen on oil immersion dropped 50%.
   b. Average number seen on oil immersion dropped 20%.
   c. Average number seen on oil immersion increased 50%.
   d. Average number seen on oil immersion increased 20%.

19. What morphologic change in erythrocytes was significant at two days after specimen collection?
   a. macrocytosis
   b. microcytosis
   c. poikilocytosis
   d. anisocytosis

20. The Teshima study recommends that EDTA samples must be sent and processed to the lab as soon as possible, blood smears should be made immediately after venipuncture with proper labelling, and the data and time of smear preparation should be noted.
   a. True
   b. False

Tests can be taken online or by mail. Easy registration and payment options are available through NIU by following the links found at www.mlo-online.com/ce.

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