Case Presentation

Carolyn Jones is a 40-year-old professor of economics at a small private college in the Midwest. During the past week, Carolyn has felt fatigued and has experienced periods of general weakness. In the past day or so, she has noticed the appearance of small, red dots on her skin and gums, and when she cut herself preparing dinner, the wound bled for what seemed to be a prolonged period of time.

When examined by her physician, Carolyn's platelet count is found to be very low and her blood clotting profile indicates a prolonged clotting time. Carolyn does not have a history of taking any medications, nor does she have a recent history of viral infection. Her physician suspects that Carolyn has Idiopathic Thrombocytopenic Purpura (ITP) and prescribes the appropriate course of therapy.

Questions

1. How and where are platelets produced in the body?
2. Describe the role played by platelets in hemostasis.
3. Define thrombocytopenia and list the more common causes of this condition.
4. What are the potential consequences of a low platelet count?
5. What drugs have been associated with the development of thrombocytopenia?
6. How is thrombocytopenia treated in individuals diagnosed with the condition?
7. How might removal of the spleen (splenectomy) result in an increase in the number of circulating platelets?
8. What is Idiopathic Thrombocytopenic Purpura (ITP)?