Stroke induced brain changes: implications for stem cell transplantation

Anna Jablonski, Barbara Lukomska

1. Provide a basic definition of what a stroke is (a definition you could give to explain what a stroke is to your grandma or 10-year-old cousin).

2. Describe the difference between ischemia, blockage, and hemorrhage. Be sure to indicate how the flow of blood is disturbed in each. Which of these is the most common cause of strokes?

3. What is an occlusion and what does it cause?

4. Define excitotoxicity.

5. What is the difference between white and gray matter in the brain?

6. Provide three examples of risk factors for stroke that a person is not in control of.

7. Provide three examples of risk factors for stroke that a person is in control of.

8. How are glucose and oxygen delivered to the brain?

9. The loss of blood flow to the brain kicks off a cascade of events that ultimately results in what? What types of cells does this cascade affect?

10. What is the difference between programmed cell death (apoptosis) and necrosis?