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Psychology B2

Term Final Essay

Stroke Patient

If the patient is blind in their right visual field and has difficulty speaking and reading aloud, it is possible that the stroke had affected the left hemisphere of the cerebral cortex. A PET scan would be an appropriate scanning method because it allows seeing how organs and tissues are working. Making it possible to look at the patients occipital lobe and Broca’s area in particular. Since the brain is soft tissue an MRI would also be an appropriate scanning method because it also shows images of soft body tissue and bone. The brain structures that were most likely to have suffered damage are the: occipital lobe, Broca’s area, brainstem, angular gyrus, and the amygdala. The patient is blind in his right vision field therefore his occipital lobe must have been affected by the stroke because the occipital lobe is what processes vision in the brain. There are many brain structures that could have been affected by a stroke that explain a patients difficulty in speaking and reading aloud. Broca’s area is on the left side of the frontal, if it were to be affected by the stroke the patient suffered, it would explain his difficulty with speaking. One of the many functions of the brainstem is the control of speech and if affected by the patients stroke it may also explain the patients difficulty of speech. The angular gyrus is associated with complex language functions such as interpretation of what is written, explaining the patients difficulty to read aloud. The patient also suffers from intense unexplainable fear which leads to prediction of the amygdala being affected by the stroke because the amygdala’s chief function is the coordination with the perception of fear. If affected, it explains the patients unexplainable sense of fear. The structure of the brain that would not be affected in this case is the hypothalamus; because the hypothalamus is in charge of autonomic nervous system and metabolic process such as breathing and sleep. Such processes are not seen to be affected in this case.