M4: Biopsychology Case Studies

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The following case study covers a 28-year-old male motorcyclist found unconscious without a helmet. The 28-year-old was brought to a nearby hospital. The man remained under intense care at the hospital for 21 days and was then discharged to a long-term care facility. A three-month follow-up visit showed the patient was living at home with their mother. At this point, it was decided he would need permanent help in day-to-day living. 11 months after the incident the patient had developed a seizure disorder. On the bright side, the patient had improved their speech through therapy.

Upon arrival at the hospital, many images were taken of the patient's brain. The CT scans of the head showed that the man had injuries primarily affecting the left frontal and temporal lobes, with additional involvement of the parietal lobe. There was also effacement, meaning the area was filled with blood or fluid, where the suprasellar cistern is. This would be next to the Hypothalamus. On top of the effacement, there was also a midline shift indicating a displacement of brain structures from the midline of the skull. Finally, there was the presence of cerebrospinal fluid from the ear, which indicated a fracture to the right temporal bone.

In summary, the patient after their motorcycle accident had injuries to the left frontal and temporal lobes, with additional injury to the parietal lobe, and possibly some damage on the right hemisphere due to the presence of cerebrospinal fluid and fractures. We know after the injury, the patient struggled with difficulties in motor skills, communication, and mood disorders. This would perfectly align with the readings. The frontal lobe is responsible for motor skills, while the temporal lobe is emotions and language.

It is important to note that a year after the brain injury, the patient was able to live at home, interact, and do day-to-day tasks. The patient still had to live with their mother for safety. The most obvious prevention measure would have been to be wearing proper protection when you go riding. It is also important to ride aggressively on closed tracks, as you will have prepped surfaces reducing the chances of losing traction. The study does mention the importance of evidence-based medicine in the treatment of traumatic brain injuries and the need for ongoing evolution in traumatic brain injury management. Improvement in TBI outcomes is also dependent on a combined effect of multiple interventions.  
  
  
  
  
  
National Library of Medicine. (2016, March 23). Severe Traumatic Brain Injury: A Case Report. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4807741/