Dentate Gyrus Immaturity in Schizophrenia

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Close examination of the hippocampus in human and mouse brains revealed that the dentate gyrus is noticeably underdeveloped in individuals with schizophrenia, providing the first clear anatomical signature for the condition. This paper hypothesizes that the retention of immature properties in this region of the brain into adulthood could be responsible for the disease, which doesn’t usually present in males until they are in their twenties or in females in their twenties or thirties. The research shows remarkable consistency between a visibly immature dentate gyrus and the emergence of schizophrenia symptoms. The abnormality may account for many cardinal symptoms of schizophrenia because the dentate gyrus is associated with the brain’s capacity to separate and process sensory stimulation and to distinguish the real from the delusional. Arrested maturation of the dentate gyrus could prove to be a valid physical biomarker for diagnosing schizophrenia.

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