3 Dimensional (3D) Assessment of Hippocampus in Alzheimer’s Disease

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Abstract: Neuroanatomical appearance can be correlated with clinical or other characteristics of illness. With the introduction of diagnostic imaging machines, producing 3D images of anatomic structures, calculating the correlation between subjects and pattern of the structures have become possible. The aim of this study is to examine the 3D structure of hippocampus in cases with Alzheimer disease in different dementia severity. For this purpose, 62 female and 38 male- 68 patients’s (age range between 52 and 88) MR scanning were imported to the computer. 3D model of each right and left hippocampus were developed by a computer aided programme-Surf Driver 3.5. Every reconstruction was taken by the same investigator. There were different appearance of hippocampus from normal to abnormal. In conclusion, These results might improve the understanding of the correlation between the morphological changes in hippocampus and clinical staging in Alzheimer disease.

Keywords: Alzheimer disease, hippocampus, computer-assisted anatomy, 3D

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