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OC-055 - (23742) - RADIOLOGICAL INVESTIGATION OF VOLUMETRIC CHANGES IN NEUROANATOMIC STRUCTURES IN INDIVIDUALS DIAGNOSED WITH ACUTE PSYCHOTIC DISORDER

E. Kaygin (Turkey)[1]; F.M. Özden (Turkey)[1]; İ. Sivri (Turkey)[1]; T. Çolak (Turkey)[1]

1 - Kocaeli University, Faculty of Medicine, Department of Anatomy, Kocaeli, Turkey

Emre Kaygin
Kocaeli

Furkan Mehmet Özden
Kocaeli

İsmail Sivri
Kocaeli

Tuncay Çolak
Kocaeli

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Acute psychotic disorder (APD) is a rapidly developing psychiatric condition that causes disconnection from reality, marked by delusions, hallucinations, cognitive disturbances, and disorganized behavior. Several diagnostic methods exist for APD, including volumetric changes in specific central nervous system (CNS) structures. This study aims to explore volumetric alterations in CNS structures associated with APD.

To minimize confounding factors, individuals with hydrocephalus, tumors, or trauma were excluded. MRI scans of 24 individuals diagnosed with APD and 24 healthy controls were analyzed. Volumes of brain structures were measured using the Vol2Brain program and normalized to intracranial volume. The data were then analyzed using IBM SPSS.

Statistically significant volumetric differences were found in the amygdala ($p<0.05$), limbic cortex ($p<0.05$), third ventricle ($p<0.05$), hippocampus ($p<0.01$), cornu ammonis (CA)1 ($p<0.01$), CA2-3 ($p<0.01$), and subiculum ($p<0.05$). The third ventricle volume was significantly larger in the APD group, while volumes of the hippocampus, CA1, CA2-3, and subiculum were significantly smaller. In contrast, the amygdala and limbic cortex volumes were significantly larger.

Ventricular enlargement is one of the most common neuroimaging findings in APD. Our study also revealed significant increases in amygdala and limbic cortex volumes, aligning with literature that

suggests variability in these structures. Factors such as first psychotic episode, bipolar disorder, emotional intensity, and medication use may contribute to these volumetric increases. These findings improve understanding of APD's neurobiological underpinnings and highlight the need for more comprehensive diagnostic criteria. Further research on volumetric changes in the limbic system could refine diagnostic precision in APD.

Palavras-chave : acute psychotic disorder, central nervous system, neuroimaging