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STRUCTURAL BRAIN ABNORMALITIES IN HOMICIDAL PATIENT: FORENSIC CASE REPORT

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Background: Studies have revealed that areas associated with violent behaviour are located in the prefrontal cortex, medial temporal regions and limbic regions. Key regions commonly found to be impaired in population of violent homicide offenders include prefrontal cortex, temporal gyrus, amygdala-hippocampal complex, and anterior cingulate cortex. Recent findings have confirmed link between large arachnoid cysts and psychotic symptoms. There is no scientific data in literature on the case of homicidal forensic patient with large arachnoidal cyst and lesion of frontal and temporal brain regions.
Clinical presentation: We present the first forensic clinical case of male homicidal patient, age 29, with arachnoidal cyst (Galassi III) occupying large portion of the right brain hemisphere. The patient is presented with acute psychotic behavior after he killed his father and was escorted to our department for psychiatric evaluation. The patient was catatonic upon admission to the hospital and completely non-cooperative (mute). After interviewing patient's family members we have collected data regarding visible changes in his behaviour in the last two years accompanied with frequent attacks of headache. MRI study revealed large arachnoid cyst in the right brain hemisphere compressing right frontal and temporal cortex with lesions in frontal and temporal cortex and lesion of the white brain matter in insular region of both hemispheres. The patient was ordered antipsychotic therapy (clozapin) and schedulled for further psychiatric observation.

Conclusion: This clinical case represents highly probable link between structural brain changes and homicidal forensic patient. We have shown multiple structural brain abnormalities supporting neuroscientific hypothesis that impulsive homicide offenders lack the prefrontal “inhibitory” machinery.

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