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&

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## Atrophy – The protector of brain herniation

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**Objective:** Brain herniation is a deadly dislocation, while atrophy is a reduction of the brain tissue. Although they seem isolated conditions, the current study reveals that the last is actually a “protector” of brain herniation.

**Methods:** In order to examine their relation, a literature search was performed on MEDLINE. For the analysis were included studies on brain atrophy due to alcohol abuse and schizophrenia. The data was compared to normal people or controls and analysed with statistical program.

**Results:** The results reveal that the pericerebral space and intracranial volume (ICV) differ among the groups, while the

brain volume appears to be the same. Moreover, after the regression analysis, the outcome reports that the foramen magnum’s volume and ICV are strongly connected. Given the circumstances that ICV and the foramen magnum do not alter with age, the only change that could be observed is the space between brain tissue and skull.

**Conclusion:** The conditions causing increased intracranial pressure have an acute onset. And because of that, the fact that people with atrophy “gain” time, thus having bigger space between brain and skull, conclude an important fact for future management planning.

## Biography

Alexandrina Nikova is a last year student at Democritus University of Thrace, Alexandroupolis, Greece. She is also a member of the neurosurgical lab faculty of the university and assistant in the operations for 2,5 years. She was a volunteer in the neurological department (Montana, Bulgaria 2016) and a hospitalization guest at the department of neurosurgery (Zurich, Switzerland 2017). Currently she is chosen to be a mentor of “Fundamental neuroscience for neuroimaging” of Johns Hopkins. Her recent researches include the field of neuro-oncology, neurosurgery, traumatic brain injuries, forensic science, vascular neurosurgery and pediatric neurosurgery.

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