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**BRAIN CORTICAL ATROPHY IN RESTRICTING-TYPE ANOREXIA NERVOSA**

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**Introduction:** Anorexia nervosa is an uncommon but life threatening psychiatric disorder that is characterized by persistent energy intake restriction associated with intense fear of gaining weight and disturbance in self-perceived weight or shape. The nutritional compromise associated with anorexia nervosa affects most major organ systems, including the brain.

**Objectives:** To present and discuss the case of a patient with restricting-type anorexia nervosa who presents brain cortical atrophy.

**Methods:** interview with the patient, analysis of patient's clinical file (including neuroimaging studies) and literature review on brain changes, especially focused on cortical atrophy, in restricting-type anorexia nervosa patients using the Pubmed/Medline databases.

**Results:** a 21 year-old female patient, with diagnosis of severe restricting-type anorexia (BMI < 15 Kg/m<sup>2</sup>), hospitalized for severe low body weight without any signs or symptoms besides memory complaints. The neurological exam was normal. Brain CT scan revealed generalized brain cortical atrophy.

**Conclusions:** In anorexia nervosa, long-term persistent energy intake restriction is associated with brain volume changes, particularly global gray matter reduction which can be reversed by normal eating and associated weight gain. Although most cases of brain cortical atrophy are reversible, some will still persist despite normal eating. This report presents a challenging patient with restricting-type anorexia nervosa with brain cortical atrophy whose successful clinical outcome will depend on anorexia's prompt and effective treatment.