

## STRUCTURAL NEUROIMAGING STUDIES IN BULIMIA NERVOSA: A REVIEW

**L. Castro**<sup>1,2</sup>, **E. Conceição**<sup>2</sup>, **A.R. Vaz**<sup>2</sup>, **E. Osório**<sup>3,4</sup>, **I. Brandão**<sup>3,4</sup>, **A.J. Bastos-Leite**<sup>5</sup>, **P.P. Machado**<sup>2</sup>

<sup>1</sup>Psychiatry, Hospital Magalhães Lemos, Porto, <sup>2</sup>School of Psychology, University of Minho, Braga, <sup>3</sup>Department of Psychiatry, Hospital de São João, <sup>4</sup>Department of Psychiatry and Mental Health, <sup>5</sup>Department of Medical Imaging, Faculty of Medicine, University of Porto, Porto, Portugal

**Introduction:** The understanding of neurobiology of eating disorders has received a remarkable contribution from neuroimaging research.

**Objective:** To review the literature on structural neuroimaging in bulimia nervosa.

**Aim:** To discuss recent contributions of structural neuroimaging to the understanding of bulimia nervosa.

**Methods:** MEDLINE and PubMed databases were searched for peer-reviewed studies, published between 2000 and 2012, by using combinations of the Medline Subject Heading terms structural neuroimaging and bulimia nervosa. A selection of relevant articles to the aim of this review was carried out.

**Results:** Relatively few articles on structural neuroimaging were found in bulimia nervosa, and the studies showed conflicting results. Some studies reported evidence of brain volume loss in patients with bulimia nervosa, possibly related to associated chronic dietary restriction. Other studies have found increased grey matter volumes in frontal and ventral striatal areas. Finally, further studies did not find any structural abnormality at all in patients with bulimia nervosa, compared to healthy control subjects.

**Conclusions:** The scarce literature available on structural neuroimaging in bulimia nervosa provides conflicting results. Further studies are, therefore, warranted.