● LETTER TO THE EDITOR

Calcitonin gene-related peptide and traumatic brain injury

Dear editor,

It is with great interest that we read the article "Relationship of calcitonin gene-related peptide with disease progression and prognosis of patients with severe traumatic brain injury" (Chen et al., 2018). In this study, the authors evaluated 121 patients who were divided into mild/moderate traumatic brain injury (TBI) (n = 61), severe TBI (n = 35) and control (n = 25) groups, and measured serum levels of calcitonin gene-related peptide (CGRP) and serum endothelin-1 (ET-1). They found that low levels of CGRP and high levels of ET-1 were associated with high mortality at 6 months.

Identification of morphological abnormalities on CT scans is very important for evaluating patients with TBI because different diagnoses are made based on different imaging findings (Maas et al., 2005).

We found that the study lacked the information about the severity of lesions that the patients presented, and about the treatment performed. Furthermore, there was no record on whether the patients presented with extracranial lesions, which could be associated with a worse prognosis (van Leeuwen et al., 2012).

CGRP is known to be a potent vasodilator and also to grant protective mechanisms in physiological and pathological conditions for the cardiovascular system and wound healing (Russell et al., 2014). Although the findings show an important relationship between serum CGRP reduction and increased mortality, the study fails to elaborate a pathophysiological explanation to justify such findings.

Finally, we would like to congratulate the authors for the interesting work. It is of highest importance to develop more studies regarding this subject. We expect that, as they are able to replicate the data presented, they may come to promote more understanding of the pathophysiology related to the reduction of CGRP.

Saul Almeida da Silva*, **Almir F. de Andrade, Robson Luis Oliveira de Amorim, Wellingson S. Paiva**
Division of Neurological Surgery, Hospital das Clinicas HCMFUSP, Universidade de Sao Paulo, SP, Brazil
Correspondence to: Saul Almeida da Silva, MD, alm.saul@gmail.com.
orcid: *0000-0003-3766-9990 (Saul Almeida da Silva)*
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