## Chronic post-traumatic headache after mild brain injury (Abstract)

Cefaleia pós-traumática crônica após traumatismo cranioencefálico leve (Resumo)

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**Introduction:** Post-traumatic headache (PTH) is the most common symptom found in the post-traumatic syndrome, it starts within seven days after the trauma, the acute form of it lasts until three months and the chronic form persists after this period. The evaluation of patients with PTH remains a great challenge to clinicians due to the lack of objective findings, so there is always controversy if the symptoms are real, psychogenic or "produced". Due to the similarity of the clinical expression of chronic PTH (cPTH) with practically all forms of primary headache, it was the objective of this study to determine the occurrence of events that frequently arise in patients of these groups: depression, anxiety, poor quality of life and cutaneous allodynia (CA).

Methodology: The subjects were divided in three groups: (a) one group without headache (CONTROL, n=25), in the 14-84 age group, mean of 35 years old (b) chronic post-traumatic headache (cPTH, n=19), in the 11-70 age group, mean of 34 years old and (c) migraine (MIGRAINE, n=29), in the 13-59 age group, mean of 36 years old, with no significant statistical difference among the groups when related to age. The patients were assessed in relation to the present symptoms of anxiety and depression by the Beck's Anxiety Inventory (BAI) and Beck's Depression Inventory (BDI), respectively. The Quality of Life Inventory was also applied, analyzing the four functional quadrants (affection, social, health and professional). In the quantitative evaluation of CA the esthesiometer of Semmens-Weinstein was used for the thresholds of pressure, and glass test tubes for the evaluation of thermal sensitivity. In relation to the qualitative evaluation of CA, it was used a simplified questionnaire.

**Results:** The majority of patients with cPTH showed similar headache symptoms to the migraine ones. The PTH was associated to the anxiety and depression levels, which are similar to the group with migraine and superior to the control group (p<0.001). The quality of life of the patients with PTH was similar to the migraine and inferior to the control group

in all quadrants, (p<0.05). The thresholds of thermal and mechanical sensitivity were inferior in the cPTH in relation to the control group, (p<0.05). Patients with PTH showed a larger quantity of cephalic allodynic symptoms and extra-cephalic in relation to the control group in the evaluation by a simplified questionnaire, (p<0.05).

**Conclusion:** The cPTH presents similar clinical characteristics to migraine. Patients with cPTH present high levels of symptoms of anxiety and depression and reduced level of life quality. The patients with cPTH showed reduced thresholds of thermal and mechanical sensitivity and larger quantity of allodynic symptoms in relation to the control group and similar to the migraine group.

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