



## Individuals with headache present increased peripheral cephalic and extracephalic sensitivity

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### Introduction

Individuals with headache present changes in the pain threshold due to pressure in the cervical region, however the literature remains controversial regarding the reduction of this parameter in the masticatory muscles.

### Objective

To evaluate peripheral sensitization of cephalic and extracephalic regions in individuals with and without headache.

### Materials and methods

Case-control study, with young adult individuals with and without headache, aged between 18 and 30 years old and excluding those with other chronic pain such as fibromyalgia, temporomandibular disorder and who had undergone previous orthognathic surgery, treatment for TMD or suffered trauma on the face. The Headache Screening Questionnaire was used to assess the frequency, intensity and duration of attacks and possible diagnosis of headache, and the Fonseca Anamnestic Index was used to verify the presence of temporomandibular disorder, considered as without TMD those who obtained <45 points, which pressure pain threshold was used to verify peripheral sensitization, using the digital algometer (Kratos®, model A-30), in the temporal muscles, masseter, tibialis anterior and thenar region, in a randomized way, three measurements were collected and the average was used. The difference between groups was compared using analysis of variance (ANOVA). The level of statistical significance was  $p \leq 0.05$ .

### Result

The sample consisted of 79 volunteers,  $n=45$  belonging to the headache group (GCC), with  $n=13$  (28.8%) diagnosed with episodic migraine and  $n= 32$  (71.1%) tension-type headache  $n= 34$  for the control group (CG). homogeneous values were observed regarding age, sex and height  $p=0.67$ , except for weight, which was higher in the GCC  $p=0.053$ . A significant difference was observed between the groups, for the cephalic, temporal ( $p=0.001$ ) and masseter ( $p=0.04$ ) and extracephalic anterior tibial muscles ( $p=0.002$ ).

### Conclusion

Individuals with headache have a reduced pain threshold in the cephalic and extracephalic regions, especially those with migraine, pointing to the need for evaluation and treatment of this condition in patients with headache.