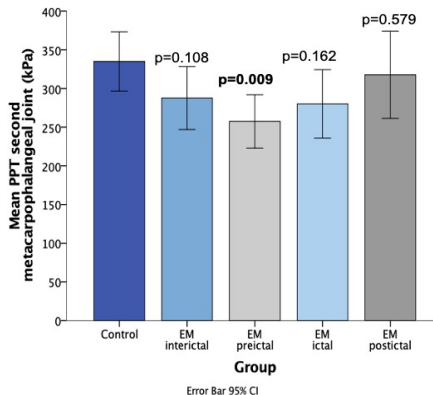
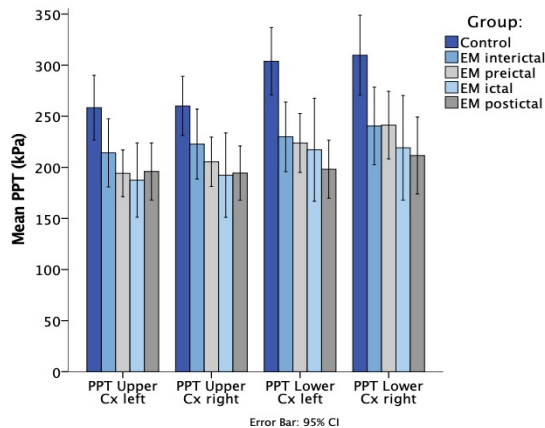
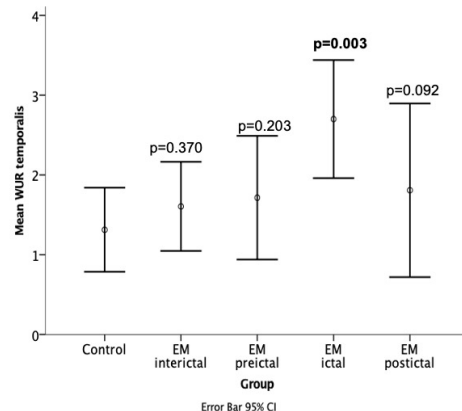
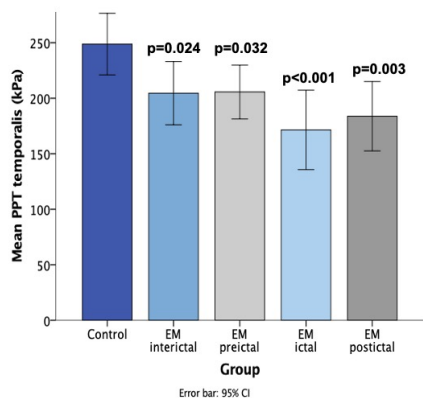


## OBJECTIVE

This study aims to assess mechanical pain thresholds in trigeminal, cervical, and distal pain-free area in episodic migraine patients in the 4 phases of a migraine cycle.

## METHOD

- In this multicenter, cross-sectional, observational study, differences in mechanical pain thresholds between episodic migraine (EM) during the 4 specific migraine phases and healthy controls were assessed
- EM patients in the 4 phases of the migraine cycle (interictal, preictal, ictal, postictal) and healthy controls (HC) (age 18 -65) were included.
- Temporal summation of pain (10 consecutive stimuli, 50 g von Frey, 1 Hz frequency) in the trigeminal area and PPT over temporalis muscle, neck region, and dominant hand were assessed.
- A linear regression model using the variable group to predict the results adjusting for possible confounders (gender, age, BMI, use of preventive pharmacological therapy, and use of symptomatic drugs in the 24 hours before the evaluation) was performed.



	EM interictal	EM preictal	EM ictal	EM postictal
PPT Upper Cx left	p=0.039	p=0.006	p=0.005	p=0.018
PPT Upper Cx right	p=0.045	p=0.009	p=0.001	p=0.005
PPT Lower Cx left	p=0.002	p=0.001	p=0.001	p<0.001
PPT Lower Cx right	p=0.007	p=0.018	p=0.001	p=0.001

## RESULTS

- 48 Control, 38 interictal EM, 42 preictal EM, 30 ictal EM, and 26 postictal EM were included.
- Temporal summation was facilitated in ictal EM compared to HC (p=0.003), with no other difference (p>0.092).
- EM patients had lower PPT in the temporal and cervical area in all phases compared to HC (p<0.024; p<0.008).
- PPT over the dominant hand was reduced only in preictal EM compared to HC (p=0.009), with no other differences (p>0.108).

## CONCLUSION

In all phases of the migraine cycle, EM patients have increased pressure pain sensitization of the trigeminocervical complex, with patients in the ictal phase have further enhanced sensitization. Signs of widespread sensitization are present only in preictal EM patients, and this may reflect an enhanced activation of cortical and subcortical areas in this phase.