

عنوان مقاله:

Comparison of the Blink Reflex and R₂ Recovery Cycle Parameters Between Blepharospasm and Healthy Subjects

محل انتشار:

مجله علمی پژوهشی دانشگاه علوم پزشکی زنجان، دوره 28، شماره 131 (سال: 1399)

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خلاصه مقاله:

Background & Objective: The blink reflex recovery cycle indicates the excitability of interneurons in the brainstem. In this study, we aimed to investigate the blink reflex and R₂ recovery cycle in patients with benign essential blepharospasm (BEB). **Materials & Methods:** This prospective case-control study compared the blink reflex and R₂ recovery in 18 BEB patients with 18 age- and gender-matched healthy individuals. The blink reflex was measured in a stimulation duration of 0.2 ms, and R₁, R₂, and R₂' were recorded for all subjects. The R₂ recovery cycle was measured by stimulation of the supraorbital nerve at four interstimulus intervals (ISI) of 200, 300, 500, and 1000 ms, with the same intensity as the previous test. The R₂ recovery index was calculated and compared with the control group via independent sample t-test. Two-tailed P-value less than 0.05 was considered statistically significant. **Results:** The blink reflex (R₁, R₂, and R₂' responses) distal latencies and amplitudes in the BEB group were not significantly different from the control group ($P > 0.05$). The R₂ recovery index in all intervals was significantly higher in the BEB group than the control group ($P = 0.00$). The most significant difference between the BEB and control groups regarding the R₂ recovery indices was observed at ISIs of 300 and 200 ms (80.36 vs. 16.99 and 75.70 vs. 12.57, respectively). There was a negative correlation between the patient's age at the onset of disease and the R₂ recovery index; however, it was not statistically significant ($P > 0.05$). **Conclusion:** Our findings showed that the R₂ recovery reflex was

higher in BEB patients than the normal population. Therefore, it can be a helpful index for differentiating BEB cases
from psychogenic or malingering ones

کلمات کلیدی:

Blepharospasm, Blink reflex, R₂ recovery cycle

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