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### **Electrorretinogram in commotio retinae**

Luciana da Cruz Noia, Adriana Berezovsky, Paula Yuri Sacai, Solange Rios Salomão, Denise de Freitas. Purposes To describe electroretinographic parameters in traumatized eyes with commotio retinae. Materials and methods Full field electroretinograms (ERGs) according to the standard protocol from the International Society for Clinical Electrophysiology of Vision (ISCEV) were performed in 15 patients who suffered blunt ocular trauma. ERGs and indirect ophthalmoscopy were done within 72 hours of trauma and 15 days before. Uninvolved eye was used as control. Results There was a statistically significant difference between affected eye and control eye regarding rod response amplitude, a and b wave amplitude at maximal response, oscillatory potentials amplitude, single-flash cone amplitude and implicit time and flicker amplitude and implicit time. However, b/a ratio and rod response implicit time did not show any statistically significant difference. In the 15th day after trauma only the oscillatory potentials maintained statistically significant difference in relation to the control eye. Conclusion

Outer retina abnormalities were detected by decreased amplitude and delayed implicit time for both rod and cone responses, suggesting photoreceptors involvement. Inner retina involvement should be considered due to oscillatory potentials reduction. Short-term follow-up showed persistence of inner retina abnormalities. These findings suggest contrecoup mechanism lesions in the interfaces of different density tissues, as previously described by Courville in the brain, and hypothesized by Wolter in the eye