

ABSTRACT

THE EFFECT OF ELECTRICAL STIMULATION TO RETINAL MICROCIRCULATIONN

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The use of electrical stimulation was increasing lately as it benefits to repair body deterioration, such as visual impairment. It is proven that electrical stimulation, especially when applied to the eye might improve the visual of the subject.

This study was conducted in focus on the micro-circulation inside the eye. The study compared the difference on the micro-circulation when electrical stimulation was applied and normal condition (not stimulated with electricity). 13 subjects participated and the brightness value data in different region on the eye was taken. 4 regions in the eye was chosen to be analyzed. From the analyzed data, there were 2 parameters emerged and was chosen one to be used.

From the chosen parameters, it can be observed that there were differences between the stimulated and the non-stimulated conditions. In certain region, the results were equivalent to existing study, which is electricity enhance the retinal vasodilation. However, other regions showed inverted results. Therefore, further study on analyzing different regions need to be established.

Keywords: Micro-Circulation, Electrical Stimulation