**DECREASE OF INTRAOCULAR PRESSURE ON NORMAL-TENSION GLAUCOMA (NTG) WHEN SUBMITTED TO RESISTANCE EXERCISE**

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**Introduction:** The influence of any physical exercise in the intra-ocular pressure (IOP) is known in the scope of sportive and/or visual sciences. The resistance exercise specifically provides an increase of the lean mass, maintenance of the force and muscular power and reduced IOP (1). Normal-tension Glaucoma (NTG), is a chronic optic neuropathy with IOP levels inferior to 21 mmHg. (2).

**Purpose:** The objective of this study was to observe the specific influence of resistance exercise in the variation of the IOP in patients with NTG, without anti-glaucoma drugs influence at a specific night-time hour.

**Material and Methods:** 16 sick people had been evaluated accordingly to the following criteria of inclusion: I) male sex; II) glaucoma diagnosed by CT Scan of Optic Coherence (OCT-Spetralis) and Computerized Static Perimetry (CSP); III) ages between 35 and 48; IV) without physical abnormalities and capable of exercising V) without anti-glaucoma medication. The volunteers were submitted to two sessions of resistance training (supine exercise), in random form: S1: 3x8 80% of 1RM with 120” of interval between the series and S2: 3x15 65% of 1RM with 60” of interval between the series and were requested to prevent extreme effort two days before the tests.

The variation of the IOP (measured by Tono-Pen, Reichert, 10 measurements per eye) occurred at two moments: before and immediately after the exercise at 10.00 pm , during 90 consecutive days (2). CSP’s were performed before and after this period of time. The statistical procedures applied were the Test of Wilcoxon and Spearman, according to a level of 5% significance. Results. It was observed that the measured IOP’s were significantly reduced (25%) with the resistance exercise, specially when the individuals were submitted to repeated resistance (RM 80%, p= 0.041; RM 65%, p=0.039). The IOP drop maintain for at least 1 hour. CPS’s had no significantly change during the clinical trial.

**Conclusions:** The practice of physical exercise of hypertrophy or resistance, contributes to the immediate sustained reduction of the IOP in NTG, when performed at 10.00 pm. Moreover, it may have influence in the disease prognosis. Key-Words: Intra-Ocular Pressure. Training of Resistance. Normal-Tension Glaucoma

**References:**