

20<sup>th</sup> International Congress on

# Vision Science and Eye

August 29-30, 2018 | Zurich, Switzerland

## Intravitreal erythropoietin: a novel technique in management of recent and old indirect traumatic optic neuropathy

**Mohammad A Rashad**

Ain Shams University, Egypt

**Purpose:** Investigating the efficacy of intravitreal injection of erythropoietin (EPO) in managing indirect traumatic optic neuropathy (ITON) of different durations.

**Methods:** This prospective interventional study included two groups of ITON patients: Recent ITON group (<3 months trauma duration; seven eyes), and old duration ITON group (3–36 months; seven eyes). Diagnostic computerized tomography (CT) and baseline flash visual evoked response (VER) were done at the presentation time. At the initial visit and each follow-up, all patients had undergone assessment of best corrected visual acuity (BCVA), pupil reaction, anterior and posterior segments. VER was repeated one and three months post injection. All patients received an intravitreal injection of 2000 IU EPO in 0.02 ml solution. Five patients had received a second injection three months later.

**Results:** Significant improvement was found in BCVA, VER amplitude and latency ( $p < 0.0001$ , 0.0154 and 0.0291, respectively). Initial values of BCVA, VER amplitude and latency correlated significantly to the final values. Differences between recent and old trauma groups were insignificant in the three parameters. In patients that received second injection, further clinical but statistically insignificant improvement was noted in BCVA in 60% of patients, VER amplitude in 50% of patients and in VER latency in 100% of patients. No complications were recorded.

**Conclusion:** Intravitreal injection of EPO is effective and safe in treatment of recent and old standing indirect traumatic optic neuropathy.

mohammadahmadrashadeyelaser@gmail.com