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Major Article

Fluoxetine as a possible treatment for adult amblyopia: results of a double-blind, randomized, placebo-controlled trial

Arash Mirmohammadsadeghi MD [a], Alireza Mousavi MD [a], Mohammad Reza Akbari MD [a], Hassan Khojasteh MD [a], Babak Masoomian MD [a], Motahhareh Sadeghi MD [a], Samira Yadegari MD [a], Hassan Asadigandomani MD [a b]

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Abstract

Purpose

To evaluate the effects of oral fluoxetine on visual acuity and visual-evoked potential (VEP) parameters in adults with amblyopia.

Methods

In this randomized clinical trial, adults (>18 years of age) with anisometropic or strabismic amblyopia were assigned randomly to a treatment (fluoxetine) group or a placebo group. Standard treatments for amblyopia (glasses prescription and patching) were prescribed for 4 months for all patients. The first group received fluoxetine (20 mg per day) and the second group received a placebo for 3 months. Visual acuity evaluation and VEP were performed before and after treatment.

Results

A total of 55 participants were included: 29 in the fluoxetine group and 26 in the placebo group. Mean age was 27.2 ± 8.6 years (18-54). The mean logMAR visual acuity of the amblyopic eye improved by 0.20 ± 0.24 (0-0.8) in the fluoxetine group ($P < 0.001$) and by 0.08 ± 0.15 (0-0.7) in the placebo group ($P = 0.01$); mean logMAR improvement was significantly higher in the fluoxetine group than in the placebo group ($P = 0.04$). At the end of the study, mean visual acuity of the fluoxetine group (0.36 ± 0.21 log MAR) was better than the placebo group (0.43 ± 0.35 log MAR). Among the VEP parameters, N75 amplitude did not change significantly in either group relative to baseline, but the changes were statistically significantly different between the two groups ($P = 0.05$); N135 latency improved from baseline in the fluoxetine group ($P = 0.03$).

Conclusions

In our study cohort, fluoxetine treatment for adult amblyopia resulted in greater improvement in visual acuity than placebo.

References (0)

Cited by (0)