Adipocities Subscleral Implant: Grown Factors may be considered a new therapy of atrophic retinal pathology?

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Purposes:
The objective of this study is to evaluate the influence of growth factors, conveyed by the insertion of a pedicle between sclera and choroid, on the visual performance compared to a group control. The basic theory of the intervention is based on the manipulation of choroidal blood flow, which produces a feedback loop that enhances the secretion of growth factors, particularly bFGF. Being a pedicle with self-nutritional benefits, these cells in the tissues are kept alive continuing the secretion of bFGF.

Patients and methods:
We considered retrospectively 42 patients (76 eyes) suffering from atrophy pathologies of the retinal cells (hereditary dystrophies, age-related macular degeneration, optic nerve pathology).

These patients were divided in two groups according to the acceptance of therapeutic proposal: Group A (20 eyes) performed the adipocities subscleral implant (ILS) and Group B (56 eyes) did not performed.

For each eye was evaluated BCVA, residual visual acuity for near and sensitivity to Nidek microperimeter (MP1). The measurements were recorded for Group A at T0, T30, T90 and T720, for Group B at T0, T180, T360 and T720.

Results:
From our experience in two years, BCVA has an improvement of 21.90% in treated cases compared with a fall of 5.74% in cases control. In two years the residual visual acuity for near has an improvement of 3.02% in treated cases compared with a fall of 9.64% in cases control, and the sensitivity analyzed by MP1 has an improvement of 62.81% in treated cases compared to an improvement of 40.76% in cases control.

The explanation of the improvement of residual retinal sensitivity in the cases control is due to photoreceptor and the visual performances increased as consequence of the better retinal trophism.

References:
2) Scalinzi S, Scuderi L, Ameda L, Morara M, De Girolomi S, Meduri RA. Evaluation of basic fibroblast growth factor (bFGF) level in peripheral exudates that underwent surgical adipocities implantation under the scleral plane. ARVO 2005, May 1 2005, Fort Lauderdale.