AUTOLOGOUS TRANSPLANTATION OF RPE AND CHOROID FOR THE TREATMENT OF WET AMD: FUNCTIONAL RESULTS AND PROGNOSTIC FACTORS AFTER A LONG TERM FOLLOW UP

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PURPOSE: The treatment of the cases of wet age related macular degeneration (AMD), which do not respond to standard care, is still controversial. Among other choices, they may be treated with autologous transplantation of retinal pigment epithelium (RPE) and choroid (PATCH). The purpose of the study was to find out the prognostic factors, in order to increase the functional and anatomical success of this surgical intervention.

METHODS: Thirty eyes of thirty patients with a choroidal neovascularization (CNV) due to AMD underwent a pars plana vitrectomy, CNV removal and a PATCH. Each eye was tested with ETDRS preoperatively and 1 month and than 3,6,9, 12, 18, 24 and 36 months postoperatively. At the same visits, the patients received an OCT scan and a fluorescein and indocianine green angiography (Heidelberg). The following parameters were evaluated preoperatively: the visibility of the inner and outer segment junction (IS-OS) and of the external limiting membrane (ELM). The following parameters were evaluated postoperatively: the visibility of IS-OS, the central foveal thickness (CFT), the thickness of the patch, the revascularization of the patch.

RESULTS: The average logMar best-corrected visual acuity (BCVA) was 1.7 preoperatively and 1.4 at the last available visit (at least one year postop) (T test p=0.006).
The majority of the patches were revascularized by two weeks postoperatively.
The central foveal thickness and the thickness of the patch normalized by 1 month.
The IS-OS segment layer became visible in one month.

CONCLUSIONS: Preoperative visibility of the IS-OS at the OCT was the major prognostic factor.