Epimacular proliferation

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Results of the largest, consecutive, prospective, single surgeon series of vitreous surgery for epimacular membranes (EMM) will be reported. Pre-op visual acuity was better than 20/70 in a significant number of cases and 20/40 in many. Active patients, athletes, and selected professionals should not be subjected to the typical entrance criteria of 20/100 or worse utilized by many surgeons.

Removal of the vitreous was utilized only if the vitreous was abnormal. Clear vitreous can be maintained without difficulty after removal of epiretinal membranes, hopefully resulting in reduced detachment in cataract cases.

An "edge" was not a criteria for surgery as was thought to be by many surgeons. An incision was made through the epicenter of the epimacular membrane utilizing the MVR blade to initiate the process in most cases. This was followed by use of the microtipped, diamond-coated, end-opening forceps to grasp this internal interface created to allow circumlinear inside-out membrane peeling. In all cases, inside-out membrane peeling was utilized rather than typical pic outside-in membrane peeling utilized by others. Especially adherent membranes were removed by scissors delamination.

The author has postulated that the high incidence of progressive nuclear sclerosis is because of lens heating (Joseph Terry) and UV exposure from the operating microscope. This would correlate with the high incidence of nuclear sclerosis reported after peripheral iridectomy, filtering procedures, and penetrating keratoplasty. It certainly raises an issue about longterm effects of keratorefractive surgery because of the exposure to the operating microscope. The heating of the lens was measured in cases and a small series was randomized to cooling the intraocular fluid and no cooling after an initial series of five consecutive years of cooling the infusion fluid.

The recurrence rate is approximately 2.5% but requires strict definition as there are healing findings in the internal limiting lamina of the vast majority of cases. Strict definition of a recurrence would include elevation of the fovea with initial increases vision followed by subsequent reduced vision not explainable by nuclear sclerosis.