Summary

Submacular neovascularization is a serious threat to vision especially if it is approaching or passing beneath the foveal avascular zone, and it was agreed upon by the Macular photocoagulation study group in 1984 that it is an important necessity to use the monochromatic green argon laser to ablate such membranes before causing serious complications

In our study we treated 50 eyes of 49 patients complaining of choroidal neo-vascular membranes at the macular area with monochromatic green argon laser. The green laser was chooser due to its wave length (517 nm) and its minimized effect on the macula.

The work was done in the research institute of ophthalmology in Giza, and all the patients were treated as out patients.

Fluorescien angiography was done to all the patients before proceeding to photocoagulation to show the site, extents and size of the neo-vascular membrane, laser photocoagulation was applied to the classic membranes only using volk qudrespheic content lens and Goldman 3 minor content lens, and treatment was applied initially to the margin of the neo-vascular membranes extending 100 micron beyond the margin of the membrane using laser spot size of 50-100 microns, then fill in treatment using a spot size of 100-200 micron untill

all the membrane is ablated.

In our study the results were obvious, we found the eyes which had neo-vascular membranes due to angioid streaks had good results and were considered successfully treated cases, while those eyes who had the submacular neo-vascularization secondary to high myopia had the least successful rates as delayed drop of vision and marked central scotoma and recurrences were common. Also the membranes due to age related macular degeneration had encouraging and were more successfully treated than those where high myopia existed.

The treatment was considered to be successful when complete ablation of the membrane, with mild or no complication and no more active neo-vascularization is still there .

The most common complications in our study were in the form drop of vision between one and up to six lines on the chart; (Landolts). Recurrences and incomplete ablation were less common and retreatment was done. Scotomas either para central or central were common as we used the Amsler grid for the central field of vision. Macular hemorrhage was the least bur most serious complication that prevented further laser treatment and caused marked drop of vision.