

Vitreotomy in Triple Therapy for Choroidal Neovascularization

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PURPOSE

A treatment regimen that combines photodynamic therapy (PDT) with a core pars plana vitrectomy (cPPV) and the intravitreal injection of Dexamethasone and Avastin was introduced at the Masters of the ASRS meeting in February 2006. In September, results 11 months after therapy will be available. The technique and rationales of performing a cPPV combined with drug injection will be discussed.

METHODS

All eyes had either occult or classic lesions and received photodynamic therapy (PDT) treatment for 42 sec. On the following day, a single sclerotomy cPPV was performed with the new Insight Instruments, Inc. Intrector® using either an indirect ophthalmoscope in the office or the microscope in the O.R. for visualization. The volume of vitreous removed from the vitreous cavity was substituted by the same volume of drugs injected into the vitreous cavity at the end of the procedure. Therefore there was no need for performing a paracentesis.

RESULTS

4 months after having performed the triple therapy, the mean visual acuity at baseline was 20/100. With only one treatment cycle of PDT, 1,25mg Avastin and 800 µg dexamethasone, the mean visual acuity increased 1.89 lines. By week 16, none of the patients had regressed to pre-treatment visual acuity and none of the patients had reported any side effect from the triple therapy. No leakage of drugs or prolaps of vitreous through the injection site during the injection after cPPV could be observed. Indirect ophthalmoscopy showed that the drugs settled down in the posterior vitreous cavity above the macula. We didn't find any complications from the cPPV manoeuvre performed with the Intrector, e.g. bleedings, hypotony, choroidal swelling and/or vitreous traction or incarceration in the injection site.

CONCLUSION

Preliminary results show that all triple therapy cases have no need for repeating the triple manoeuvre after 6 to 8 weeks. Since basic research results presented by other authors in 2006 prove that vitrectomized eyes have a higher intraocular oxygen tension we speculate, that both, the increased oxygen supply as well as the triple therapy may be responsible for the promising results.

* Financial interest disclosed