**Pars Plana Vitrectomy Combined with Endoresection of Choroidal Melanoma in 6 Cases**

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### Purpose

To report our pars plana vitrectomy combined with endoresection of CM in 6 cases with favorable results in order to preserve visual functions as much as possible and avoid enucleation.

### Summary

- Pars plana vitrectomy combined with endoresection of choroidal melanoma not involved with the macula was performed in 6 patients before or after eye-preservation therapies.
- Five of 6 patients underwent preoperative photoreceptor therapy or laser therapy.
- The cytological results of 4 patients treated with preoperative photoreceptor therapy were class I in 3 patients and class V in 1 patient.
- Viable malignant cells were found in all 2 patients treated with only preoperative laser therapy.
- Five of 6 patients required one or two times of vitrectomy to stabilize the intraocular condition.
- Three of 4 patients treated with preoperative photoreceptor therapy required permanent silicone oil tamponade.
- Patients treated without preoperative photoreceptor therapy tended to recover better visual acuities than those with it.
- In all 6 patients, their eyeballs were preserved successfully without recurrence and metastasis after the surgery.

### Discussion

- Pars plana vitrectomy for complications after eye-preservation therapy for CM. – Right or Wrong?
  1. The tumor resorption by pars plana vitrectomy as the first treatment has been previously reported.<sup>6</sup>
  2. Pars plana vitrectomy with favorable prognosis was reported by Harbort et al.<sup>7</sup>
  3. Resection of large tumor in pars plana vitrectomy at early stages after the proton beam radiation therapy was reported to be associated with favorable prognosis by Bechrakis et al.<sup>1</sup>
  4. It has been almost fully understood that the pattern of chromosomal aberration in tumor cell is associated with the prognosis and recurrence, regardless of the therapy.<sup>7</sup>
  5. Quality of life (QOL) can be improved , even if the eyeballs are preserved without visual functions . If visual functions can be restored, the patients must be satisfied.

- Resection of tumor during pars plana vitrectomy. – Right or Wrong?
  1. Cytological finding during vitrectomy suggests that the tumor combined with vitrectomy may increase the risk of vitreous reattachment with proliferative vitreoretinopathy and glaucoma.
  2. Residual tumors may cause recurrent intravitreal hemorrhage.
  3. The tumor structure may make it difficult to perform resection.
  4. Cytological finding of the tumor cells may make possible to prevent recurrence and complications.
  5. It remains to be determined whether the current techniques and instruments for pars plana vitrectomy are enough to completely remove tumor cells and prevent recurrences.

### Conclusion

By the vitrectomy combined with endoresection of choroidal melanoma, we might eradicate choroidal melanoma without causing metastasis, as well as preserve the eyeballs with various complications after eye-preservation therapies.