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Clincial Image

Vitrectomy with Temporal Approach Technique is Helpful in Removing Severe Diabetic Proliferative Membrane

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Clinical Image

The common difficulties of performing Pars Plana Vitrectomy (PPV) for severe Proliferative Diabetic Retinopathy (PDR) are to avoid incomplete removal of the hyaloid and iatrogenic retinal breaks which cause postoperative complications. Generally, the surgeon seated at the head end of the patient for the standard PPV. Although this approach is applicable for most of PDR cases, it is difficult for some complicated cases. Under such circumstances, an alternative approach is useful. Here, we report PDR case of 42-year-old woman with Tractional Retinal Detachment (TRD) who was successfully treated with the temporal approach technique. Herinitial visual acuity of the right eye was hand motion. There wasa thick and wide-spreading Proliferative Membrane (PM) with an incomplete Posterior Vitreous Detachment (PVD). We performed PM segmentation, but there was a difficulty to create a complete PVD and peel the PM in the superior area by conventional approach (Figure 1). Due to this difficulty, the surgeon moved to a temporal position and switched the canula setting (Figure 2). Using this temporal approach technique, we safely removed the PM without creating any retinal breaks. Six months later, her visual acuity improved to 20/30. Residual vitreous traction due to incomplete PVD is a major risk factor for the vitreous hemorrhage or TRD [1]. In addition, younger adult patients with PDR who undergo vitrectomy have a higher rate of postoperative complications and poorer visual outcome [2] which is associated with postoperative residual vitreous traction.Tarantola et al. [3] also reported the usefulness of this technique for various cases with a relative ease of adopting this technique for surgens.

In conclusion, temporal approach technique is a good option for PDR vitrectomyto avoids intra- and postoperative complications.

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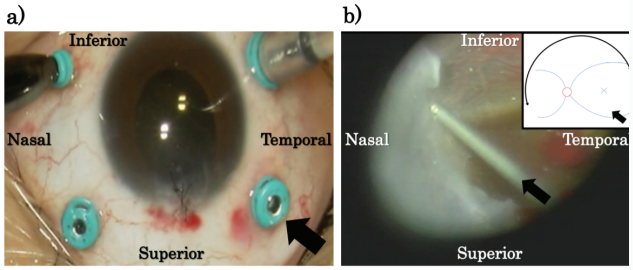

Figure 1: The conventional sclerotomy incisionsfor proliferative diabetic retinopathy (PDR).
The vitreous cutter or forceps is inserted through the right canula (arrow in [a] and [b]). Using thisconventional approach, the inferior area of the vitreous cavity can be approached from the right canula (double arrows in [b]).

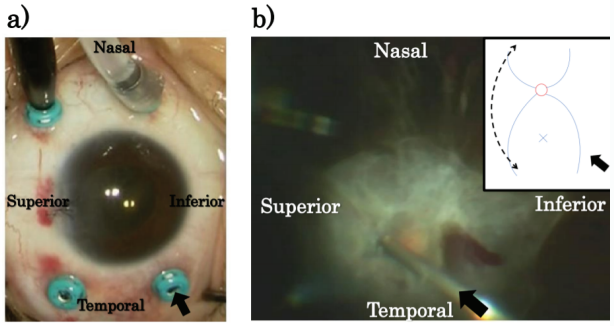

Figure 2: The temporal approach technique for proliferative diabetic retinopathy (PDR).
With the temporal approachtechnique, the superior area can be approached from the right canula (black arrow in [a] and [b]).The surgeon can handle the proliferative membrane in the superior areaeasily (double broken arrow in [b]).