Findings that shed new light on the possible pathogenesis of a disease or an adverse effect

Spontaneous resolution of vitreomacular traction syndrome in a patient with diabetes with associated thickened posterior hyaloid prior to elective parsplanar vitrectomy demonstrated on optical coherence tomography

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Summary

To describe an unusual case of vitreomacular traction syndrome spontaneously resolving prior to elective pars planar vitrectomy demonstrated on optical coherence tomography.

BACKGROUND

An interesting case of spontaneous resolution of vitreomacular traction syndrome (VMTS) in which, fortuitously, pars plana vitrectomy was deferred and the patient resolved over a period of 2 weeks. The author has now changed her practice to include a period of observation of 3–6 months depending on the duration of patient's symptoms before performing an operation, particularly in diabetic patients with a history of panretinal photocoagulation (PRP). An optical coherence tomography (OCT) is particularly useful.

CASE PRESENTATION

A 50-year-old Malay woman with known diabetes and a history of PRP for proliferative diabetic retinopathy was scheduled for right pars planar vitrectomy for VMTS. Her vision was 6/24, 6/18, N12. She had undergone left vitrectomy/gas injection in July 2007 for VMTS. This was complicated by a cataract for which surgery was performed in February 2009. Her left best corrected visual acuity (BCVA) was 6/36, 6/24, N12. She claimed that her right eye vision had progressively deteriorated in the last 3 months. There was no metamorphopsia. Clinically there was epiretinal membrane with macular striae and oedema with quiescent retinopathy.

INVESTIGATIONS

- ▶ OCT on presentation: VMTS (figure 1) with macular thickening and thickened posterior hyaloid in V shaped configuration.
- ▶ OCT on preoperative day: pagoda-shaped elevation at macula.
- ▶ OCT on proposed admission day: resolution of VMTS (figure 2)

OUTCOME AND FOLLOW-UP

The patient was given an operation date within 1 month. However, her operation was deferred due to limited operation time and she was given a new date 6 months after onset of her symptoms. On her preoperative investigation day, her vision was 6/18, 6/12, N6 (+3D). Two weeks later during admission she perceived spontaneous further improvement in vision, particularly her near vision and was now able to read. Her vision was 6/9, N9 unaided. Surgery was deferred on review of the repeat OCT (figure 2).

DISCUSSION

(VMTS is defined as a distinct clinical entity in which partial posterior vitreous detachment is present in combination with persistent macular adherence causing traction-induced visual deficit.¹ Vitrectomy has been proposed as an option to relieve this anterior posterior traction on the macula, which generally causes macular oedema and may lead to macular detachment or macula hole.² Retrospective reviews of vitrectomy for VMTS report improvement of vision varying from 75% with up to 40% attaining 20/50 vision or better following vitrectomy.¹ However, vitrectomy is not without risks, including complications of cataract, epiretinal membrane formation and retinal breaks. Furthermore, a significant percentage of VMTS will resolve spontaneously, particularly after an intervention such as intravitreal injection.³ However, the natural history is only just beginning to be understood and it is still not known which cases will spontaneously resolve and which cases should be operated on. Yamada and Kishi reported that incomplete V-shaped posterior vitreous detachment leads to foveal retinal detachment and favourable surgical outcome.⁴ Our case suggests that V-shaped posterior vitreous detachment in VMTS in diabetic patients may herald spontaneous resolution.

Figure 1 Right optical coherence tomography of the macula on presentation showing typical vitreomacular traction syndrome with macular thickening and thickened posterior hyaloid in V-shaped configuration.

Figure 2 Right optical coherence tomography of the macula 6 months later showing resolution of vitreomacular traction syndrome with residual macular thickening.

Learning points

- ▶ Spontaneous resolution of VMTS may occur in patients with diabetes who are candidates for vitrectomy surgery.
- ▶ A period of observation of 6 months following symptom onset in VMTS did not result in an adverse visual outcome following resolution of VMTS.
- ▶ V-shaped posterior vitreous detachment in VMTS in a patient with diabetes may indicate a favourable outcome following resolution.
- ▶ V-shaped vitreous detachment in VMTS may be observed for up to 6 months.
- ▶ This is a useful reminder that many conditions can be observed before operative intervention as they can resolve spontaneously.

Competing interests None.

Patient consent Obtained.

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