

## Extrafoveal vitreous traction associated with diabetic diffuse macular oedema

Authors: Avinoam Ophir, Trevino A, Fatum S., Haifa, Israel

### Purpose:

To present an association between diabetic diffuse macular oedema and extrafoveal vitreous traction by optical coherence tomography (OCT).

### Methods:

In a retrospective study, charts and OCT scans of diabetic patients with macular oedema were reviewed. Eyes with either vitreofoveal or extrafoveal traction were included. Eyes that had vitreoretinal adherence with no sign of traction, idiopathic vitreomacular traction syndrome, or vitreoretinal surgery were excluded. Macular maps were compared with normal controls (n=12).

### Results:

Of the 186 eyes of 122 consecutive patients, 45 eyes (41 patients) were analyzed. Vitreofoveal traction was detected in 25 eyes (56%) and extrafoveal traction in 20 (44%), either at the retina (16; 35%) or at the optic nerve head (4; 9%). Of these 20 eyes, related extrafoveal retinal oedema was in continuum with the central macular oedema, manifesting as diffuse macular oedema, in 16 (36% of all 45) eyes. Vitreous adherence was detected by the centrally fixated Automatic 6-radial lines program in 26 eyes (58%): 5 (25%) of 20 with extrafoveal traction and 21 (84%) of 25 with vitreofoveal traction. In the other 19 (42%) eyes, the vitreous traction site was detected only by the Line group OCT-2000 program, which is manually controllable during the scanning process.

### Conclusions:

Diabetic diffuse macular oedema may be related to an extrafoveal vitreous traction. The traction sites were detected in a large proportion of eyes only by the OCT Line group program and not by the Automatic 6-radial lines program. Further studies are required to validate the clinical consequence of these findings.

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