



Mind the depth – forward displacement of the lens-iris diaphragm and myopic shift after ophthalmic surgery is suggestive of aqueous misdirection

The Science behind the Tip

Aqueous misdirection is a serious condition with potentially higher prevalence than expected. Predominantly observed after ocular surgery, especially filtration surgery¹, it manifests clinically as shallowing of the anterior chamber both centrally and peripherally by forward displacement of the lens-iris diaphragm.

Here, the composition of the anterior chamber cell depth, its asymmetry between the eyes (unless bilateral²) and the myopic shift allows for differentiation of the condition from pupillary block. Consequently, some patients report an increase in near vision. This “myopic surprise” may be the only initial tip, which the patient offers towards the correct diagnosis³.

References

- 1) Grzybowski A, Kanclerz P. Acute and chronic fluid misdirection syndrome: pathophysiology and treatment. *Graefes Arch Clin Exp Ophthalmol.* 2018 Jan;256(1):135-154. doi:10.1007/s00417-017-3837-0. Epub 2017 Nov 6. PMID: 29110086; PMCID: PMC5748435.
- 2) Pathak-Ray V, Bansal AK, Malhotra V. Bilateral aqueous misdirection syndrome after routine cataract surgery in angle closure. *J Cataract Refract Surg.* 2019 Dec;45(12):1826-1829. doi: 10.1016/j.jcrs.2019.07.034. PMID: 31856996.
- 3) Chung Shen Chean, Duminda Gabadage, Subhanjan Mukherji; Aqueous misdirection syndrome masking as myopic surprise: a case report and review of literature. *Invest. Ophthalmol. Vis. Sci.* 2021;62(8):584.