A 28-mm intraocular foreign body removal: The vitreoretinal surgeon's dilemma

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Background: Intraocular foreign body (IOFB) removal becomes tricky if its large and impacted in the ocular coats. When confronted with such a combination, the vitreoretinal surgeon will need to modify the surgical plan. This surgical video describes one of such situation encountered during removal of a long wooden IOFB impacted in the ocular coats. Purpose: The video describes a scenario when the surgeon becomes aware that injury to ocular structure is inevitable due to inherent length of the IOFB. However, a careful assessment of the situation helps the surgeon to identify how he could minimize the damage to the eye and not put vision at risk. Synopsis: A young boy presented with painful loss of vision in left eye since 15 days. Examination showed BCVA of 20/32 and limitation movement in up gaze. Fundus showed hazy media and an IOFB in superior quadrant. It was noted that IOFB was moving with eye movement. The impaction in sclera and extraocular extension was suspected. After pars plana vitrectomy, it was observed that IOFB was longer than what was measured by the scan and it was impacted in the coats. Removal using IOFB forceps further pulled the IOFB into vitreous cavity. A rectangular scleral window was created, IOFB was pushed towards opposite pars plana region to avoid injury to macula, optic nerve, lens and peripheral retina. The IOFB was then removed. The retinal tears were lasered. Three months following the surgery, he developed cataract, which needed surgery. His BCVA at the last follow up visit was 20/25 with attached retina. Highlights: 1. Limitation of movement in presence of linear IOFB shall raise a suspicion of IOFB being impacted in coats and possibility of its extraocular extension; 2.An oblique IOFB posterior to limbus, can have length more in transverse diameter of the eyeball. Though rarely used, an ab-externo approach can be a viable option in such a case to minimise injury to vital structure of the eye, particularly if the IOFB is severely impacted in sclera. Online Video Link: https://youtu.be/2bF3WLd812o

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