

Surgical Retina

CHANDELIER RETROILLUMINATION-ASSISTED FOR TRAUMATIC CATARACT SURGERY

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PURPOSE: To present and describe an alternative cataract surgical technique for cases with poor red reflex.

METHODS: We describe a case of a traumatic cataract with vitreous hemorrhage caused by a firecracker. The patient underwent combined phaco surgery and 23-gauge vitrectomy. Chandelier retroillumination was inserted into the infusion trochar during the cataract operation and was used in necessary steps to enhance the red reflex facilitating the visualization of lens structure and capsule.

RESULTS: Phacoemulsification was successfully performed and there were not phaco complications or complications due to this technique during surgery. Endoillumination was used with and without microscope illumination interchangeably during the cataract extraction. Retroillumination assistance was especially useful during epinucleus removal and Irrigation-aspiration of cortical material.

CONCLUSIONS: Chandelier-assisted retroillumination could provide a better resolution and contrast for cataract surgery in cases with poor red reflex when cataract extraction is combined with vitrectomy. Moreover, it proves to be a safe and effective technique which doesn't require an additional cannula port as the same cannula port is used for the infusion when the vitrectomy is performed. Based on our outcomes, we suggest performing this technique in traumatic cataracts with poor red reflex.