Intracameral Illumination in cases with a Poor Red Reflex

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Disclosures

- No relevant financial relationships to disclose
Cataract Surgery in cases with a Poor Red Reflex

- Vitreous hemorrhage or other mechanisms which compromise the fundus reflex can make cataract surgery more challenging.
- Anterior segment dyes and chandelier retro illumination have been used to assist the surgeon.
Chandelier Retro Illumination

Figure. Chandelier retroillumination–assisted cataract extraction. A, A 23-gauge illuminated infusion chandelier is introduced into the vitreous cavity. B, Illumination from the posterior side improves visualization of the anterior capsule and facilitates successful continuous curvilinear capsulorhexis. The lens capsule (C) and residual cortex (D) are clearly observed.

Intracameral Chandelier

- Used through paracentesis.
- Gives oblique light which can improve contrast and resolution.
- Described in the current issue of the Journal of Cataract and Refractive Surgery.
- Typically used in conjunction with vitrectomy to clear vitreous hemorrhage.
Intracameral Chandelier Combined with 23 gauge vitrectomy

Our Technique

- Pig eye model was utilized.
- Trypan blue was injected into the vitreous.
- Standard cataract procedure was performed up to the capsulorrhexis.
- 23 gauge illuminator was inserted through the paracentesis.
- A continuous curvilinear capsulorrhexis was made.
Poor red reflex created by posterior chamber vision blue.

Good red reflex in a pig eye model.

No illumination.

High intensity illumination.
Intracameral Illumination
Conclusion

- We describe a new technique utilizing a chandelier in the anterior chamber through the paracentesis to assist with cataract surgery in patients with a poor red reflex.