



The Siddig Technique: A Safe and Innovative Surgical Method for Managing Hypermature and Morgagnian Cataracts with Weak Zonules

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Purpose

To introduce and evaluate a novel surgical approach—The Siddig4 Technique— designed to manage hypermature and Morgagnian cataracts with weak zonules, reducing the risk of lens dislocation and capsular rupture.

Methods

A prospective case series was conducted between 2010 and 2015 involving 400 eyes diagnosed with hypermature or Morgagnian cataracts. The surgical procedure began with a controlled puncture of the anterior capsule to decompress the liquefied lens material, followed by injection of viscoelastic to reform the capsular bag and restore its natural contour. Continuous curvilinear capsulorhexis (CCC) was then safely completed. The nucleus was gently prolapsed into the anterior chamber, and a foldable intraocular lens (IOL) was implanted beneath it prior to phacoemulsification. Intraoperative and postoperative outcomes were evaluated.

Results

All surgeries were completed successfully without intraoperative complications. There were no cases of posterior capsule rupture, zonular dialysis, or capsulorhexis extension. No conversion to extracapsular or intracapsular cataract extraction was required. All eyes demonstrated stable IOL positioning during postoperative follow-up.

Conclusion

The Siddig4 Technique provides a safe, effective, and reproducible method for managing advanced hypermature and Morgagnian cataracts associated with weak zonules. Controlled decompression and viscoelastic reformation of the capsule effectively minimize stress on the zonular apparatus, preventing intraoperative complications such as capsular rupture and lens dislocation. This approach represents a reliable modification suitable for surgeons dealing with complex cataract cases.

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