

Intra Ocular Lenses - A comparison of refractive outcomes and complications

Purpose: To compare the refractive results and perioperative complications of a range of current unifocal intraocular lenses

Method: A prospective cohort study involving 550 cases compared the refractive and visual outcomes of patients receiving either Alcon WF/Toric, Zeiss Asphina/Torbi, Hoya 251/351, Technis one piece/toric or B&L Envista MX60/MX60T were compared. Surgeries were performed by a single surgeon consecutively. Exclusion criteria was post operative BCVA less than 6/9 where intercurrent ophthalmic disease could explain the reduced vision. Patients were reviewed at 1 day, 1 week and one month postoperatively. Complications were reviewed and discussed

Results: No statistical significant difference was found in UCVA. Statistical difference was noted between the Hoya 351 compared to the Envista MX60Tx. The Zeiss lenses gave excellent visual outcomes but had the highest complication rates. The Envista MX60 and Alcon SN6ATx gave the best mix of visual outcome and safety whilst the HOYA lenses offered the most reliable delivery system. The Technis lenses were discontinued due to high predictive error and the Envista MX60T was discontinued due to poor rotational stability.

Conclusion: No definitive answer can be made regarding lens choice. However this study has led us to use the HOYA lens where lens loading is an issue. †Where this is not an issue we use the Envista MX60 where a non toric lens is required and either the Alcon SN6ATx or Zeiss Torbi where a toric lens is required.