MSA Abstract

Introduction: Manual small-incision cataract surgery (MSICS) is a valuable technique in treating cataracts worldwide. While its comparable visual outcomes, sustainability, and cost effectiveness make it a mainstay of treatment in low-resource settings, its application in complex and advanced cataracts and utilization in surgical conversion highlight its utility across all other settings. Our retrospective cohort study investigated residents' surgical education in MSICS. An accompanying survey study further assessed resident interest in learning MSICS.

Methods: This was a chart review of MSICS cases performed 01/2021 – 12/2022 at a "safety-net" hospital affiliated with a U.S. ophthalmology residency program. MSICS cases were found using procedure codes, with 39 unique cases identified. Relevant information including surgery date, case length, attending surgeon, resident, resident surgical role (surgeon vs. assistant), and planned MSICS vs. conversion were collected. This data was analyzed through calculation of means, medians, and percentages appropriate for all data points.

Results: Of the 39 reported MSICS cases, there were three identified attending surgeons. Most of these cases were completed by a single attending surgeon. Most of the cases were also completed by the attending as the primary surgeon, with 46% of the cases involving a trainee as the primary surgeon. Of the cases in which a trainee was involved, a single case was completed by a fellow while the rest were completed by PGY-4s. From 2021 to 2022, the average number of MSICS cases at this safety-net hospital a resident was involved in decreased by half.

Conclusions: Our study highlights variability in the average number of MSICS cases a single resident performs. This variation in cases could be due to multiple reasons, ranging from the comfort level of attending surgeons teaching MSICS, resident interest in MSICS, and availability of appropriate cases. Recognition of the utility of MSICS in conversion cases and complex cataracts may inform the need for a MSICS surgical curriculum in U.S. ophthalmology residencies.