



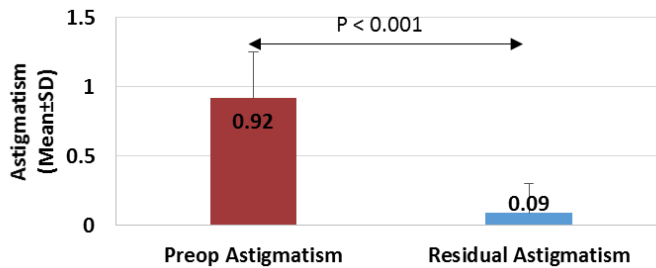
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Astigmatism correction using iris registration-guided, femtosecond-laser assisted Arcuate Incisions (AIs) during cataract surgery with Lensar Streamline and Cassini

Lensar Streamline in combination with Cassini pre-operative diagnostics allows for advanced Arcuate Incision planning. By means of iris registration and pre-operative diagnostic information from Cassini, Arcuate Incisions are automatically generated based on surgeon preferred settings and surgically induced astigmatism, enabling surgeons to efficiently manage astigmatism treatment

This study is a retrospective review on a total of 203 subjects (279 eyes) with Cataract and pre-existing astigmatism (0.50 D to 1.91 D) that underwent LENSAR femtosecond laser-assisted cataract surgery and Arcuate Incisions using wireless transfer (Streamline) of the preoperative undilated Iris-registration image from Cassini to laser system.

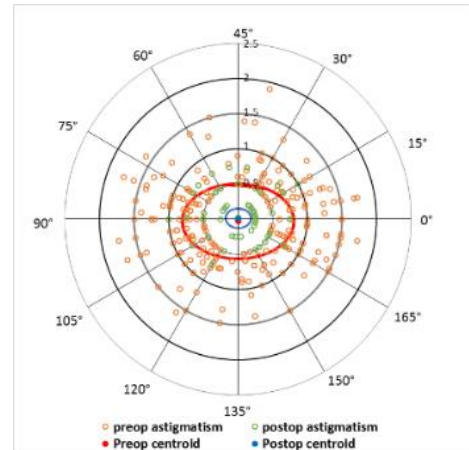
Mean Preop vs Postop Astigmatism



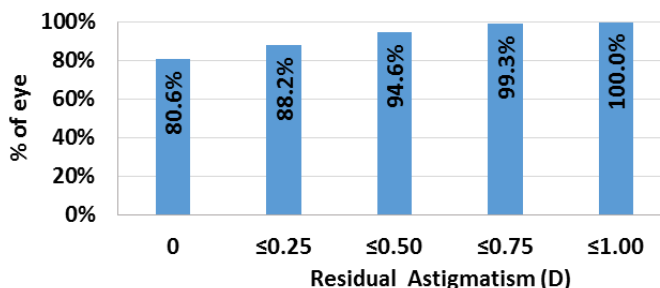
Astigmatism decreased significantly postoperative as compared to the preoperative level (p < 0.001)

Double angle plot: preop corneal astigmatism vs 3-month postop refractive astigmatism

The Double angle plot shows the pre-operative astigmatism (orange with centroid in red), compared to the post-operative astigmatism (green with centroid in blue)



Cumulative Outcome Distribution of Residual Astigmatism



94.6% eyes had ≤ 0.5 D and 99.3% eyes had ≤ 0.75 D of residual astigmatism postoperatively

Data courtesy of
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