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Author:	Kamalbandhu Kapoor, MS
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Title:	Optimized Ablation with CustomVis Pulzar Z1 Solid-State Laser in Myopic Eyes
Contributing Authors:	Kapoor, Kamalbandhu; Evangelista, Raymond; Pujara, Tarak A.
Purpose:	To investigate the clinical efficiency of the Pulzar Z1 in maintaining pre-operative asphericity and avoiding postoperative induction of high order aberrations in standard surface treatments.
Methods:	Fifty-six eyes of 36 patients were treated for myopia and myopic astigmatism with surface ablation. All patients were followed for a minimum of 6 months. Standard Ablation with asphericity, centration and cyclorotation optimization was used in all cases.
Results:	Six months after surgery 39% gained 1 line and 32% gained two lines in their best spectacle corrected visual acuity. 71% of patients had mean refractive spherical equivalent (MRSE) within ± 0.25 Diopter (D) and 88% were within ± 0.5 D. 20/15 or better Uncorrected Visual Acuity (UCVA) was achieved in 54% of cases and 86% had 20/20 or better. Mean pre operative asphericity (Q) was -0.25 and post operative Q was -0.14. Mean preoperative Spherical Aberration (SA) was 0.07μ and postoperative SA was 0.22μ . Mean preoperative RMS for coma+trefoil was 0.26μ and postoperatively it was 0.34μ .
Conclusion:	Asphericity, centration and cyclotorsion optimization in standard CustomVis treatments prevented any significant induction of SA and coma and probably represents all the customization that is needed to achieve the desired quality of vision in myopic eyes.