Correction of highly aberrated eyes using Alcon CustomCornea LADAR 4000

Purpose:
To determine the effectiveness of Alcon CustomCornea LADAR 4000 system in correcting significant higher order aberrations in eyes with previous keratorefractive surgeries.

Methods:
Consecutive case studies involved 7 eyes of 6 patients with significant higher order aberrations from previous LASIK, PRK, RK, ALK, Hexagonal keratotomy. The series included both phakic and pseudophakic patients.

Results:
All patients showed significant improved in best spectacle corrected visual acuity after the treatment. Two PRK sessions were needed for one patient to achieve the desired reduction in higher order aberrations.

Conclusion:
The CustomCornea LADAR 4000 system is an effective tool to correct significant higher order aberrations in eyes with previous complex keratorefractive surgeries. Sequential treatments appears to further reduce the higher order aberrations.