



RLES AI® REFRACTIVE PASSPORT & IOL REPORT

COMPLEX CASE: IOL SUPPORT IN A PASSPORTED EYE — DEMO

REFRACTIVE LASER EYE SURGERY – ARTIFICIAL INTELLIGENCE ASSISTED

DEMO REPORT — FICTITIOUS PATIENT

This document is a demonstration output of the RLES AI® report engine. The patient and all measurements are FICTITIOUS; they belong to no real person. Not for clinical use; no medical decision may rely on it. Real reports are produced by the same engine from the surgeon's uploaded examinations.

1 · THE CASE — A PROMISE MADE 12 YEARS AGO, KEPT TODAY

DEMO PATIENT K (fictitious) · 61 · cataract · myopic LASIK 12 years ago — carrying a REFRACTIVE PASSPORT: preop K 43.9/44.8 · preop manifest SE -5.25 · stable postop K 39.6 · treatment Δ SE -5.00 · preop IOP 16 with pachymetry on record. Without a passport this history is 'the difficult eye'; with one, it approaches routine.

1b · WHAT THE PASSPORT HOLDS — THE FULL FIELD SET

Field group	In this patient
Preop cornea	K1 43.9 · K2 44.8 · Kmax 45.1 · pachymetry 528 μ m
Preop refraction	SE -5.25 (-4.75 -1.00×175) · CDVA 1.0
Treatment	Δ SE -5.00 · OZ 6.5 · ablation 74 μ m · flap 100 μ m · WFO
Stable postop (≥ 3 mo)	K 39.6 · SE -0.25 · pachymetry 452 μ m
IOP context	preop GAT 16 + preop pachymetry — so the post-refractive under-read is interpreted knowingly
Note to the cataract surgeon	True-K History inputs + the 'no standard formulas' warning — written 12 years ago

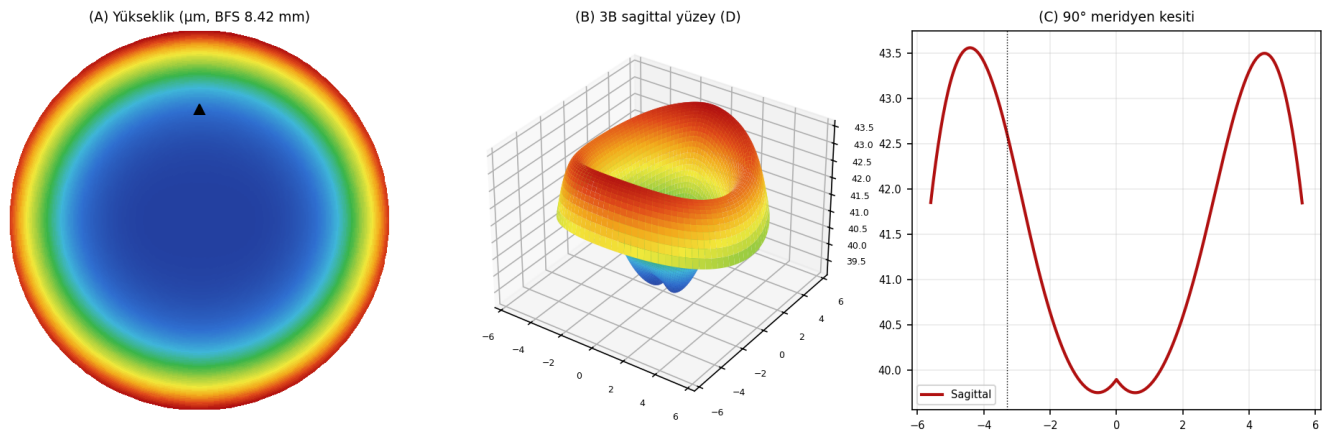


Figure 1 — Current surface reconstruction: the expected OBLATE footprint of a 12-year-old myopic ablation, no irregularity; the central 39.6 D matches the passport's stable postop K exactly. The figure is the visual counterpart of the consistency audit.

REKONSTRÜKSİYON DİPNOTU

Bu görsel, cihaz çıktısındaki sayısal değerlerden türetilmiş bir rekonstrüksiyondur; ham cihaz çıktısı değildir. 1 D $\approx$ 10 μ m.

2 · CONSISTENCY AUDITS — THE PASSPORT VALIDATES THE DATA



Audit	Result
Current K ↔ passport postop K	39.7 vs 39.6 — NO progressive drift (ectasia/warping screen negative)
$\Delta SE \times 0.8$ expected K drop	$5.00 \times 0.8 = 4.0$ D expected · measured $43.9 - 39.6 = 4.3$ D — concordant
Post-refractive IOP context	today's GAT 12 — the passport's preop 16 + thinning record written beside it; the under-read is interpreted knowingly

3 · THE IOL SUPPORT PLAN — READY FOR APPROVAL

Item	Plan
Formula route	Barrett TRUE-K HISTORY (MAE 0.36 D) — thanks to the passport; No-History is not needed
Input set	preop K + ΔSE + current biometry — ready for the surgeon's platform; IOL POWER IS NOT CALCULATED, no brand is written
Target	−0.25 ... −0.50 (post-myopic safety practice)
Passport update	after cataract surgery the passport is RENEWED with stable values — the document lives with the patient

CONCLUSION

The passport is a note the surgeon of 12 years ago left for the surgeon of today: the most accurate formula route opens, consistency audits prevent the surprise, and 'the difficult eye' becomes a planned, predictable operation.

SURGEON'S SIGNATURE & AI VERIFICATION

This report is clinical decision support; the plan is finalised by surgeon approval. Signature: _____ Date: _____