



RLES AI® ENHANCEMENT PLANNING REPORT

COMPLEX CASE: RETREATMENT OVER AN 8-YEAR-OLD FLAP — DEMO

REFRACTIVE LASER EYE SURGERY - ARTIFICIAL INTELLIGENCE ASSISTED

DEMO REPORT — FICTITIOUS PATIENT

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1 · THE CASE — RESIDUAL MYOPIA OVER AN OLD FLAP

DEMO PATIENT H (fictitious) · 37 · LASIK 8 years ago · residual $-0.75 -0.50 \times 80$. Stability: two measurements 7 weeks apart, $\Delta 0.00$ D ✓ · treatment threshold ≥ 0.50 D ✓. The critical questions: lift the flap or work the surface — and does the cumulative tissue budget carry a retreatment?

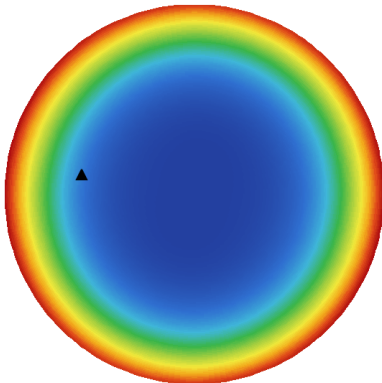
2 · ROUTE SELECTION & THE CUMULATIVE BUDGET

Check	Result
Re-lift (flap > 2 years)	POSSIBLE, but late re-lift carries ~9% epithelial ingrowth → surface ablation takes PRIORITY
Cumulative tissue	current measured thinnest pachy 471 μ m · retreat ablation 16 μ m · on the PRK route RSB=RCT-50 → floors pass
Cumulative PTA	first + second procedures total 38.9% — below threshold
Recut	PROHIBITED — a second cut is never made

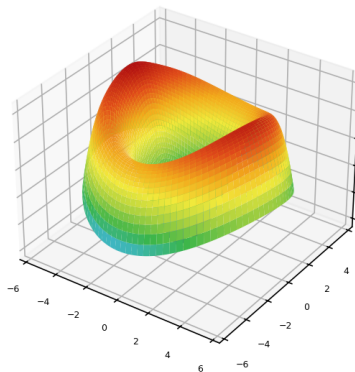
2b · SCREENS — RULE 13 · SERIAL PACHYMETRY · THE POST-REFRACTIVE INDEX NOTE

Screen	Result	Band
Rule 13 warpage (9 indicators)	0/9 — CLEAR	no lens history · stable axis · no RMS/A flag
Serial pachymetry (indicator 8)	471 → 470 μ m (7 weeks)	$\Delta 1$ μ m < the 15 threshold — stable ✓
Ectasia surveillance (post-refractive)	Kmax 41.9 · posterior elevation unchanged (vs prior map)	Δ BAD-D is NOT used here — its reference database is for virgin corneas; surveillance is serial comparison
Rule 16 — ORA	cylinder 0.50 D	at the TIA < 0.50 Alpins gate — the vector diagram is deliberately not produced

(A) Yükseklik (μ m, BFS 8.32 mm)



(B) 3B sagittal yüzey (D)



(C) 170° meridyen kesiti

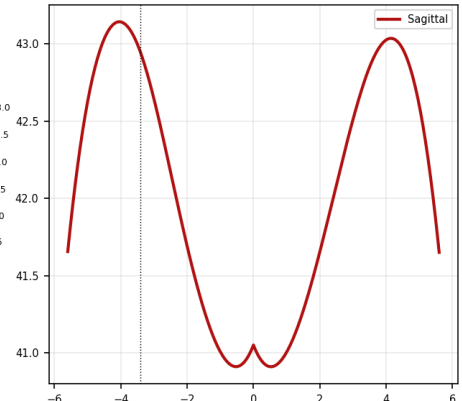




Figure 1 — Surface reconstruction, NO irregularity detected (Rule 13: negative findings are proven too): the expected OBLATE footprint of an 8-year-old myopic ablation — central flattening with a symmetric, gradual mid-peripheral transition; no decentration, no focal steepening. A reconstruction from the device map; not raw output. 1 D $\approx$ 10 μ m.

REKONSTRÜKSİYON DİPNOTU

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

2c · THE WFG/TG DECISION · REMAINING MANDATORY SCREENS

Screen	Value	Decision / band
Corneal HOA (RMS · coma · spherical)	0.28 · 0.12 · 0.19 μ m	low — the complaint is blur only; NO halo/ghosting → no HOA-driven dissatisfaction signal
Ablation centration	0.18 mm	< 0.3 — no decentration → TG re-centration NOT needed; Rule 17: WFO retreat sufficient (with rationale)
Rule 12 (surface route)	myopic · cylinder 0.50	not hyperopic/mixed/ $\geq$ 3.0 → haze exclusion PASSED; MMC prophylaxis stays in the plan
Tear film + dry-eye set	0/6 · OSDI 9 · TBUT 10	normal — deliberately screened in a post-LASIK eye
Medication + systemic query	clear	queried incl. isotretinoin/steroids/autoimmune
ACA + G9	33°	green; post-retreat steroids + AN OLD FLAP = the IFS/DLK trap address → IOP query written into follow-up
Postop K window · pupil	40.8→40.2 · 6.0/6.5	36–49 ✓ · pupil $\leq$ OZ ✓

3 · SURGICAL PLAN — READY FOR APPROVAL

Item	Plan
Procedure	transepithelial PRK over the flap + MMC 0.02% (haze prophylaxis and follow-up)
Ablation	16 μ m central · OZ 6.5 · centration matched to the old ablation on the map
Follow-up	BCL until re-epithelialisation · haze checks m1/m3/m6 · outcome feeds the personal nomogram via a FOLLOW-UP record

CONCLUSION

An 8-year-old flap is not a barrier but a route-selector: ingrowth risk points to the surface route, the cumulative budget passes, and the retreatment becomes a planned, safe procedure (Rule 11).

SURGEON'S SIGNATURE & AI VERIFICATION

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