RLES AI® DRY EYE ANALYSIS REPORT

COMPLEX CASE: A SURFACE PLAN IN AN MGD CANDIDATE — 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 TEAR FILM THAT CORRUPTS THE TOPOGRAPHY

DEMO PATIENT I (fictitious) · 41 · LASIK candidate. DEWS II two-arm diagnosis: OSDI 34 (symptoms ✓) + TBUT 4 s · meiboscore 2 · osmolarity 312 (homeostasis ✓) → MODERATE-SEVERE MIXED (MGD-dominant). Tear-film signatures 4/6 positive: consecutive Sim-K difference 0.4 D, inferior steepening with raised ISV — a PSEUDO-KERATOCONUS pattern. No ablation is planned on these maps; but the patient is not rejected either.

1b · THE FULL DEWS II SET — BOTH ARMS, WITH VALUES

Test	Value	Threshold	Arm
OSDI	34	≥13	symptoms ✓
TBUT	4 sn	<10 suspect · <5 marked	homeostasis ✓
Osmolarity	314 · gap 10	≥308 or gap >8	homeostasis ✓
Staining (Oxford)	cornea 6 spots	>5	homeostasis ✓
Meiboscore · secretion	2 · abnormal	≥2	subtype: MGD
Schirmer	9 mm	<5 aqueous · 5–10 borderline	borderline → MIXED
Lid wiper	1.5 mm	≥2 mm	negative

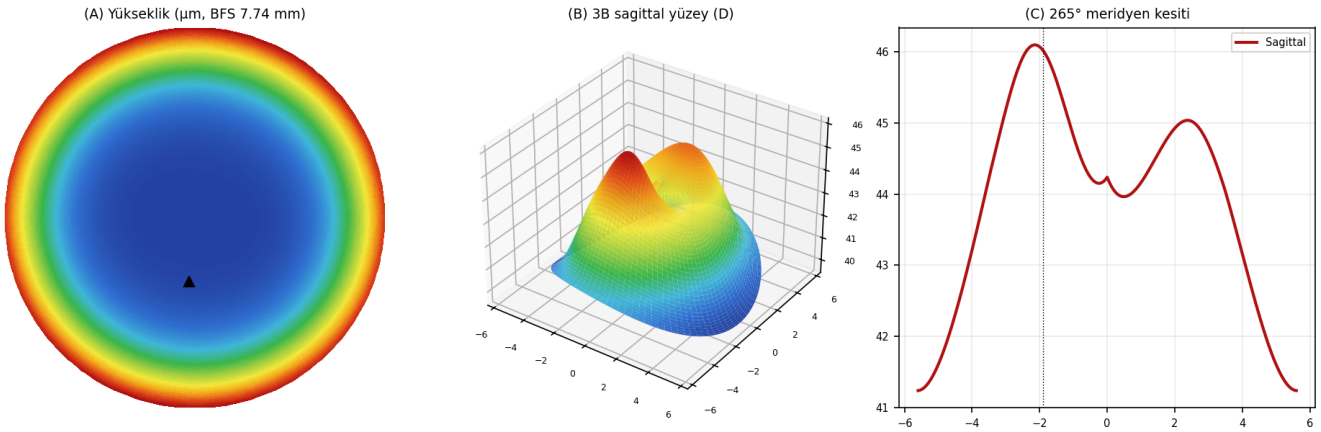

Figure 1 — FIRST-SCAN surface reconstruction: inferior steepening with raised ISV — a PSEUDO-KERATOCONUS pattern. On the post-tear repeat the pattern clears and the steepening migrates (differential in §2); the posterior surface is normal. No ablation is planned on this map.

REKONSTRÜKSİYON DİPNOTU

Bu görsel, cihaz çıktısındaki sayısal değerlerden türetilmiş bir rekonstrüksiyondur; ham cihaz çıktısı değildir. 1 D ≈ 10 µm.

2 · THE DIFFERENTIAL — PSEUDO OR TRUE?

Discriminator	In this patient	Reading
Shot-to-shot migration	the steepening migrates	favours pseudo
Post-tear repeat scan	the pattern clears	favours pseudo
Posterior surface	normal	favours pseudo — borderline anterior indices were NOT counted toward KC

3 · THE SURFACE PLAN & RE-EVALUATION TIMETABLE

Step	Plan
Step 1 (MGD-dominant)	unpreserved tears + lid hygiene/warmth + meibomian expression; 2–4 weeks
Step 2 (if refractory)	topical anti-inflammatory tier at the surgeon's discretion; omega-3 counselling; punctal plugs debated in MIXED type
Re-evaluation	dry-eye set at week 3 + the TWO-CONSECUTIVE-CONCORDANT-topographies condition
Procedure direction	once stable: on an MGD background flap nerve transection worsens dry eye → SMILE or a temporal-hinge plan moves forward; surgeon's call

CONCLUSION

Refusing to finalise on a corrupt surface is not rejection: three weeks of planned stabilisation plus the right procedure direction carry this patient safely to surgery.

SURGEON'S SIGNATURE & AI VERIFICATION

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