Trans-PRK

„One step- no touch“ - surface ablation with Schwind AMARIS – laser

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What was known

- Long term results of PRK and LASIK are very similar
- Pain and time needed for recovery of visual acuity uncertain
Augen Laser Zentrum Aschaffenburg

- 480 Myopia (≤ 8,0 dpt)
- 85 Hyperopia (≤ 4,5 dpt)
- 85 Astigmatism (≤ 4,5 dpt)

Total: 565 trans-PRK

Largest number of patients treated in Germany
Method

- Aspheric ablation profile
- OZ 7 mm
- MMC 0.02% for 30 s
- Day of surgery: Thursday p.m.
- Bandage contact lens 4 days
- Eye drops: Ofloxacin, Oxybuprocain, Voltaren, Dexamethason, art. tears
Results: Epithelium healing

- Contact lens for 4 nights (Dailies Total 1; CibaVision)
- 99% Epith. healing at day 3
- 1% painful prolonged healing ≤ 5 days
Results: Pain

- Slight to moderate pain at day 2
Results: Haze

- haze grade 1 postop for 3 month: often
- haze grade 0 to 0.5 at 6 months: 98%

- No complaints
Results: Postop Visual Rehabilitation

- Bilateral procedure (35%):
  - UCVA
    - 0,3 at day 4
    - 0,5 – 0,6 at day 7 (out of office 1 week)

- Unilateral procedure (65%):
  - (out of office 1 day!)
    - Remember: day of surgery - Thursday pm
Results for myopic Patients
Stability
Expense of refractive surgery

- LASIK
- Excimerlaser
- Keratome
- Femtolaser
  - ca. 4 - 5.000.-€

- t-PRK
- Excimerlaser
  - ca. 2 - 3.000.-€
summary

- no problem: Haze, healing, pain, sicca
- Important: intensive advice
  - low risk
  - money
  - time of visual rehabilitation

Myopic: 20/20  2  weeks
Hyperopic: 20/20  2 - 4  month

advantage: sequential surgery
Thank you for your attention
**t-PRK treatment**

- Myopia > -8.0
- Hyperopia > +5.0
- Astigmatism > -4.5

- Using almost MMC 30-40 sec
- BSS, Voltaren, Dexa, Oflox, anesth. drops

- Contactlenses (Dailies Total 1 CibaVision)
Differences minus

- Lasik
  - Very expensive,
  - DLK
  - Epithelium ingrowth
  - Sicca many month
  - Flap complications
  - Corneafolds
  - Cornea <500µ
  - not possible in security jobs: Army, Firefighters, Police

- t-PRK
  - Haze1
  - FB-feeling and pain
  - Sicca for weeks
  - Visual Reha-delay 3-6 days
Differences plus

- Lasik
  - Short Vis. Reha
  - Less pain
  - Very good result

- t-PRK
  - For nearly all possible
  - Less side effects
  - Low cost
  - No flap complications
  - Very good result