Cornea Transplant Registry – the Swedish Model.

Margareta Claesson Armitage MD, PhD
Sahlgrenska University Hospital
Sweden

Supported by the Swedish Government
Swedish Corneal Transplant Register

• Started 1996
• Multicenter (Sweden and Denmark)
• >11 000 transplants
• Focus on visual outcome
• 2 year follow up
• Web based – managed by EyeNet Sweden
Indications

2007-2009 (n=1162)
- KC: 22%
- FD: 18%
- BK: 19%
- Regraft: 16%
- Other: 25%

2010-2012 (n=1645)
- KC: 15%
- FD: 31%
- BK: 14%
- Regraft: 26%
- Other: 14%
Swedish Cornea Register – Postop VA

Redrawn from Claesson et al. BJO 2002;86:174-180
Has the graft failed?
Overall failure = 16% at 2 years
Rejection
Overall rejection at 2 years = 16%
Type of procedure

2007-2009

- PK: 60%
- ALK: 14%
- EK: 14%
- Other: 12%

2010-2012

- PK: 53%
- ALK: 13%
- EK: 28%
- Other: 6%
Postop VA in Fuchs’ - PK vs EK

P=0.6

Categorical distribution of postoperative visual acuity in Fuchs’ corneal dystrophy patients, comparing partial keratoplasty (PK) with endothelial keratoplasty (EK).

- PK (n=47):
  - <0.2: 0%
  - 0.2-0.5: 20%
  - >0.5: 80%

- EK (n=124):
  - <0.2: 2%
  - 0.2-0.5: 60%
  - >0.5: 40%

2015-04-14  GAEBA
Postop astigmatism per indication, PK vs EK

- All: p<0.0001
- Fuchs' + BK: P<0.0001
- Regraft: P=0.001

PK vs EK comparison for different indications.
Swedish Corneal Transplant Register contd.

• Projects
  • 10 year follow up of cohort
  • Factors influencing outcome for bullous keratopathy
  • Astigmatism and the effect of relaxing incisions
  • Outcome of regrafts
Grafts functioning at 10 years per indication

Claesson M, Armitage WJ. Cornea 2009;28:1124-1129
Change in astigmatism after refractive surgery
Percentage of failure first graft vs. regraft by indication

Patient Reported Outcome Measures

- Measure self-assessed visual disability
- Catquest-9SF (Lundström et. al. 1997)
  - Rasch analysis
- Swedish National Cataract Register since 1995
- Validated for corneal transplantation
Rasch score: indication

![Graph showing Rasch scores for different indications with P-values: P=0.002 and P=0.02.](Image)
Conclusions

• A registry improves our understanding of the factors that influence graft outcome.
• ’Real world’ outcomes vs single centre.
• Combining patient reported outcome with clinical outcome helps define the true benefit to patients.