

14:00 - 15:30 Cataract surgery practice styles

Red 1-2 - podium 1

CHAIRS : SHERAZ DAYA, GUY KLEINMANN



Khayam Naderi

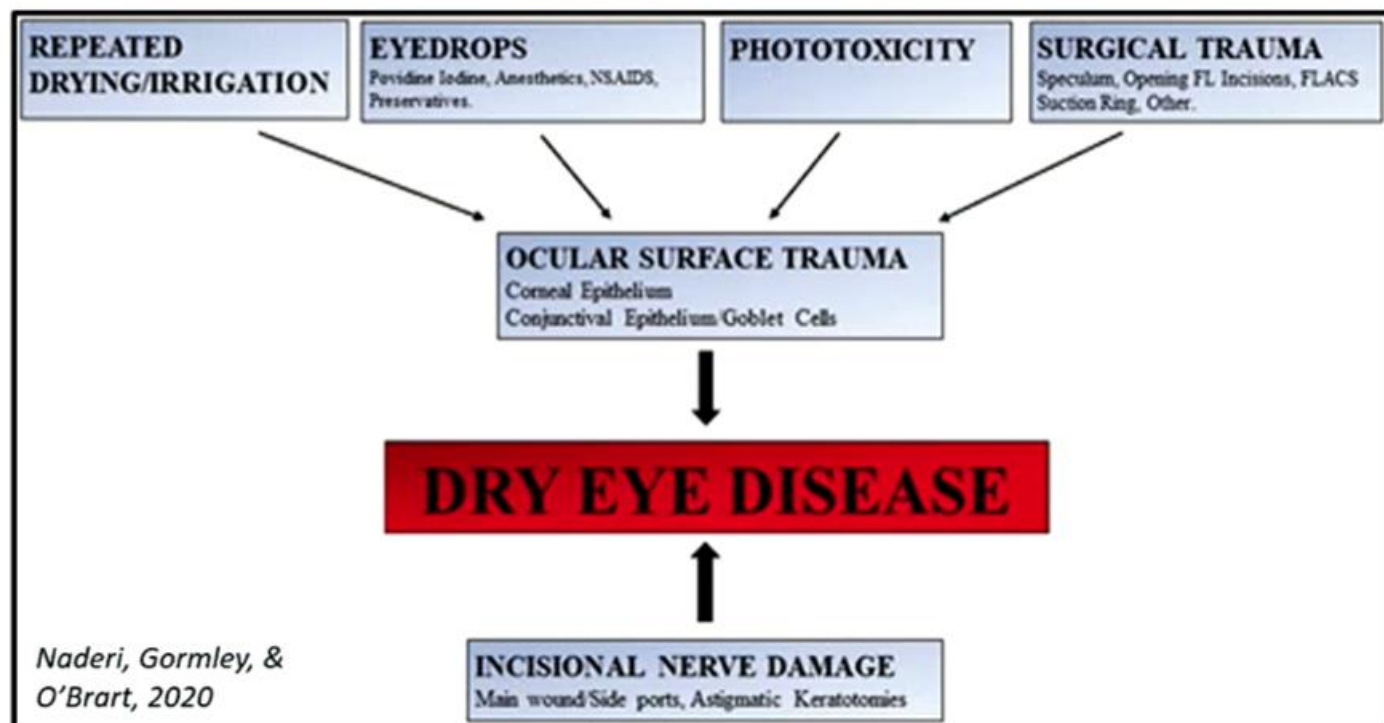
The Efficacy Of Post-Operative Lubricating Drops To Limit Dry Eye Disease Symptoms And Signs Following Cataract Surgery: Preliminary Data Of A Randomised Control Trial

Cataract Surgery and Dry Eye Disease (DED)

Intra-operative

Pre-operative

Post-operative



Naderi, Gormley, &
O'Brart, 2020

- **Single-centre, prospective randomised case-controlled study.**
- Adult patients with no known history of DED or any vision impairing co-morbidities were recruited into the study and randomised into two groups:
 - Standard Care Group: 0.1% Dexamethasone drops 8/day 1/52 then QDS 3 weeks + 0.5% Chloramphenicol QDS 2/52
 - Intervention Group: 0.1% Dexamethasone drops 8/day 1/52 then QDS 3 weeks + 0.5% Chloramphenicol QDS 2/52 + Lubricating eye drops 6/52 (AEON Repair QDS 3/52 followed by AEON Protect Plus QDS for 3 weeks).
- **Follow-up:** Baseline, 2/52 post-op and 8/52 post-op.
- **Primary Outcomes:**
 - SPEED II DED symptomatology questionnaire
 - CATPROM-5 questionnaire
 - EQ-5D-3L questionnaire
- **Secondary Outcomes:**
 - Uncorrected distance visual acuity (UDVA)
 - Best corrected visual acuity (BCVA)
 - Non-invasive tear break-up time (NTBUT)
 - Schirmer I test (ST)
 - Tear meniscus Height (TMH)
 - Ocular surface staining (OST) (Oxford scale)
 - Automated % of Meibomian gland dropout (MGD)
 - Adverse events

Results

Standard Care Group (n=29)	Baseline	2/52	8/52
UDVA (mean, SD)	0.72 (0.36)	0.16 (0.18) p<0.0001	0.12 (0.19) p<0.0001
BCVA (mean, SD)	0.44 (0.33)	0.045 (0.12) p<0.0001	0.012 (0.11) p<0.0001
SPEED II (median, range)	2 (0-12)	2 (0-8) p=0.39	2 (0-19) p=0.29
CATPROM5 (median, range)	-0.32 (-2.81 to 7.45)	-3.37 (-9.18 to 1.22) p<0.0001	-4.92 (-9.18 to 0.69) p<0.0001
EQ5D3L (median, range)	1 (0.587 to 1)	1 (0.587 to 1) p=0.47	1 (0.195 to 1) p=0.47
EQ5D3L Raw (median, range)	90 (50-100)	90 (20-100) p=0.35	90 (50-100) p=0.90
NTBUT (median, range)	10.1 (7.9 to 15.5)	10.4 (8.6 to 14.2) p=0.52	11 (8.8 to 19.9) p=0.02
Schirmer (median, range)	6 (2-20)	5 (1-25) p=0.26	7 (1-35) p=0.96
Ocular Surface Staining (median, range)	1 (1-2)	1 (1-2) p=0.18	1 (0-2) p=0.77
TMH (median, range)	0.33 (0.18-0.75)	0.34 (0.21-0.84) p=0.25	0.33 (0.16-0.85) p=0.02
% MG Dropout (median, range)	27 (4-61)	26 (7-58) p=0.32	23 (3-62) p=0.56

Intervention Group (n=25)	Baseline	2/52	8/52
UDVA (mean, SD)	0.81 (0.46)	0.12 (0.18) p<0.0001	0.093 (0.16) p<0.0001
BCVA (mean, SD)	0.56 (0.39)	0.0092 (0.11) p<0.0001	-0.021 (0.070) p<0.0001
SPEED II (median, range)	2.5 (0-10)	2 (0-9) p=0.089	2 (0-8) p=0.023
CATPROM5 (median, range)	-0.32 (-3.37 to 4.23)	-3.37 (-9.18 to 0.69) p<0.0001	-4.92 (-9.18 to -0.32) p<0.0001
EQ5D3L (median, range)	1 (0.587 to 1)	1 (0.691 to 1) p=0.20	1 (0.656 to 1) p=0.15
EQ5D3L Raw (median, range)	90 (50 to 100)	90 (50 to 100) p=0.02	90 (50 to 100) p=0.29
NTBUT (median, range)	10.3 (8.4 to 19.3)	10.7 (9.6 to 11.2) p=0.70	10.7 (9.6 to 15.2) p=0.71
Schirmer I (median, range)	6 (3-27)	11 (1-40) p=0.82	8.5 (5-27) p=0.67
Ocular Surface Staining (median, range)	1 (0-2)	1 (0-2) p=0.43	1 (1-2) p=0.22
TMH (median, range)	0.3 (0.14-0.6)	0.4 (0.21-0.8) p=0.03	0.37 (0.2-0.76) p=0.11
% MG Dropout (median, range)	2.5 (3-54)	23 (4-42) p=0.40	25.5 (5-54) p=0.63

Results (Head-to-Head)

Head to head (SCG vs IG)	Baseline p-value	2/52 p-value	8/52 p-value
UDVA	0.48	0.27	0.57
BCVA	0.23	0.27	0.21
SPEED II	0.93	0.33	0.42
CATPROM5	0.25	0.58	0.7
EQ5D3L	0.9	0.18	0.47
EQ5D3L RAW	0.58	0.32	0.97
TBUT	0.49	0.26	0.54
Schirmer I	0.82	0.12	0.59
OST	0.53	0.43	1.0
TMH	0.83	0.36	0.99
% MG Dropout	0.69	0.41	0.78

Discussion

- Our preliminary results indicate that in routine small-incision phacoemulsification cataract surgery in patients without known DED, there are no adverse changes post-operatively in measured DED parameters.
- Although Speed II scores were significantly improved at 8 weeks in the IG, there were no differences in the primary and secondary outcomes between the two groups.
- Post-operative lubricating drops after routine cataract in eyes without known DED do not appear to be required in preventing post-CS DED symptoms. Further data acquisition continues.