

NCC 'FUTURE GENERATION 2024' POSTER Abstracts
SCIENTIFIC SESSION IN COOPERATION WITH THE BCLA

NCC 'Future generation 2024'

Organization Section: NCC/ BCLA

POSTER Abstracts

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**Evaluation of a new corneal scleral
contact lens design in keratoconus**

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Purpose: To evaluate the efficacy of visual
rehabilitation with rigid gas permeable
(RGP) corneal scleral contact lenses (CLs)
in subjects with keratoconus who are
intolerant to RGP corneal CLs and unable
to wear RGP scleral CLs

Method: 23 eyes of 14 subjects (8 female,
mean age 32, min 19 max 68 years) with
keratoconus (mean Kmax 50.13, min
45.02 max 59.72D) were fitted with
corneo-scleral CLs after failure of other
CLs. For each eye, high-contrast BCVA,
ocular aberrometry and the degree of
insertion ability and comfort during use
were measured with the different CLs
tested

Results: A better high-contrast BCVA for
scleral CLs ($p < 0.01$), better compensation
for scleral CLs of coma aberration ($p < 0.05$)
and of primary ($p < 0.05$) and secondary
($p < 0.05$) astigmatism was measured
between corneoscleral and scleral CLs.
Corneoscleral CLs improved the insertion
ability compared to scleral CLs. Comfort
was rated as acceptable by 87% of
corneoscleral CL wearers for up to 12
hours per day

Conclusions: Corneal scleral LCs have
proven useful in visual rehabilitation in
keratoconus and acceptable in prolonged
comfort with reduced optical
compensation compared to scleral LCs

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