



Title: Scleral lens prescribing trends in children in the Netherlands

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Abstract:

Introduction

Pediatric ocular surface disease can significantly impact visual function and quality of life, underscoring the need for effective and well-tolerated treatment options. Scleral lenses are increasingly recognized as an effective therapeutic modality in pediatric patients. Outcomes of scleral lens use in children at a large specialty contact lens practice in the Netherlands were evaluated to characterize their efficacy and clinical role in pediatric eye care.

Methods

In this retrospective study, data of all novel scleral lens fits during a six-year period of children <18 years were analyzed and compared to adults (≥ 18 years). Patient demographics, lens design, parameters and indication were analyzed. Scleral lenses were fitted using the Visser philosophy with diagnostic trial sets.

Results

292 scleral lenses of 227 children were evaluated and compared to 4779 lens orders in 3605 adults. Median age of the children at the time of the initial lens order was 16 years (range 3-17) and 64.7% was male. The medical indication was keratoconus in 59.7% of children versus 49.3% in adults, while keratoplasty and dry eyes are more prevalent in adults compared to children (8.2% versus 0.7% and 10.6% versus 1.7%, respectively). In pediatric patients (<10 years), other causes of irregular astigmatism were the predominant indication (73.9%) for scleral lens fitting.

Conclusions

Scleral lenses can be successfully fitted in children. The results support the integration of scleral lenses into clinical practice for appropriately selected pediatric patients.