Higher order aberration in corneal scars after RGP contact lens fitting

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Introduction : Cornea is one of the main optical structures of our eye and it's specific arrangement of collagen fibres and anterior-posterior surface shape plays a vital role in controlling higher order aberration (HOA). Any disturbance in the corneal surface and structural arrangement can cause a corneal opacities or scar.

Aim : The aim of the review was to find a correlation between corneal scars and HOA after rigid gas permeable lens fitting.

Method : Relevant articles were identified through PubMed or Scopus using keywords in such as Higher order aberrations, corneal scar, rgp lenses

Key findings : RGP contact lenses shows a decrease in some aspects of HOA of cornea and increase in visual performance after fitting as well as HOA shows significant increase in corneas with scars, however there is a lack of information regarding effect of RGP contact lenses on scared corneas in regards of HOA

Conclusion : while RGP contact lenses shows a promising results in visual performance in corneal scars and both the factors have a direct correlation with HOA so in future studies, changes in HOA in corneal scars after fitting of RGP lenses should be assessed for the development of aberration free contact lenses in segments of ocular surface disease management.