Though the concept of an artificial cornea seems attractive (on the analogy of the intraocular lens), it is important to understand the limitations of this treatment mode, before we attempt a critique.
Limitations of any keratoprosthesis

- Possibility of extrusion
- Possibility of infection
- Impossible to monitor glaucoma
- Fundus view poor so retinal treatment difficult (if required)
- Complications like retroprosthesis membrane occur frequently
- All keratoprostheses do not work in pemphigoid
Possibility of extrusion

- Maximum with Cardona nut and bolt type
- Less with Worst Singh type and with Fyodorov Zhukov types
- Osteo-odontokeratoprosthesis (Strampelli) also has lesser extrusion rates
Nut and bolt keratoprosthesis
Intrastromally supported keratoprosthesis

Keratoprosthesis with intrastromal fixation
Worst-Singh Keratoprosthesis

ss suture provides distal fixation to equator

collar-button keratoprosthesis

Cornea provides proximal fixation
Fyodorov-Zhukov Keratoprosthesis

keratoprosthesis
Possibility of infection

- Omnipresent in all types of keratoprosthesis irrespective of design as there is a potential space between the plastic cornea and the tissues which can allow infection to track into the eye.
Worst-Singh type of keratoprosthesis
Steps in Worst-Singh keratoprosthesis implantation-1

A peritomy is done and 4 incisions extended towards the equator.
Steps in Worst-Singh keratoprosthesis implantation-2

A small central trephination is done
Steps in Worst-Singh keratoprosthesis implantation-3

A horizontal extension of the circular opening is made and the lens, if any, extracted.
Steps in Worst-Singh keratoprosthesis implantation-4

The collar-button shaped keratoprosthesis is inserted.
Steps in Worst-Singh keratoprosthesis implantation-5

- Proximal fixation by cornea
- Distal fixation to equator by ss suture
Thank You