Graft Failure without Rejection - A Rare Entity

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Clinical History
- A 25 year old male patient construction worker by occupation came with chief complains of DOV in RE since 3 months
- Patient was apparently alright 3 months back when he complained of diminution of vision which was gradual in onset painless progressive and associated with mild redness watering and foreign body sensation
- No h/o pain, discharge, lid swelling, photophobia, itching, coloured haloes, floaters, trauma

Past History
- Patient had history of lime injury 7 months back (9/6/2019). For which he took treatment but there was no sign of improvement so penetrating keratoplasty was done on 30/9/2019
- No h/o DM, HTN, TB, asthma

Personal history
- Mixed diet; Appetite normal
- Sleep normal; Bowel bladder habits normal

Family history: Not significant
- Drug history: Patient was on eye ointment cyclosporine 0.05%, eye drop steroid, lubricants.
- No h/o any drug allergy

General Examination
- Patient is conscious, cooperative and oriented to time place and person
- Average built; Pulse-88/min; BP-120/70 mmHg

Systemic examination
- Abdomen-WNL
- Respiratory system-WNL
- CVS-WNL; CNS-WNL

RE

### VISION | HM + PR accurate
---|---
POSITION OF HEAD | Normal
POSITION OF EYE BALL | Central
OCULAR MOVEMENTS | Full and + in all cardinal gazes
LIDS | normal
LACRIMAL PASSAGE | ROPLAS -ve
CONJUNCTIVA | Mildly congested
SCLERA | Normal
ANTERIOR CHAMBER | Not appreciable
IRIS | Not appreciable
PUPIL | Not appreciable
LENS | Not appreciable
Digital Tension | Normal
**RE Cornea**
- Conjunctivalisation and vascularisation of cornea was present circumferentially
- Graft host junction was not appreciable
- Any of sutures were not visible
- Transparency – opacification was present
- Surface – irregular
- Vascularisation – present
- Deposits – absent
- Corneal sensation – reduced
- Fs stain – negative
- No signs of rejection are seen

**LE**

<table>
<thead>
<tr>
<th>VISION</th>
<th>6/6</th>
</tr>
</thead>
<tbody>
<tr>
<td>POSITION OF HEAD</td>
<td>Normal</td>
</tr>
<tr>
<td>POSITION OF EYE BALL</td>
<td>Central</td>
</tr>
<tr>
<td>OCULAR MOVEMENTS</td>
<td>Full and + in all cardinal gazes</td>
</tr>
<tr>
<td>LIDS</td>
<td>normal</td>
</tr>
<tr>
<td>LACRIMAL PASSAGE</td>
<td>ROPLAS -ve</td>
</tr>
<tr>
<td>CONJUNCTIVA</td>
<td>Normal</td>
</tr>
<tr>
<td>CORNEA</td>
<td>Clear</td>
</tr>
<tr>
<td>SCLERA</td>
<td>Normal</td>
</tr>
<tr>
<td>ANTERIOR CHAMBER</td>
<td>ACNID</td>
</tr>
<tr>
<td>IRIS</td>
<td>Normal</td>
</tr>
<tr>
<td>PUPIL</td>
<td>Central, circular, reacting to light</td>
</tr>
<tr>
<td>LENS</td>
<td>Clear</td>
</tr>
<tr>
<td>Digital Tension</td>
<td>Normal</td>
</tr>
</tbody>
</table>

**Fundus**
- **Fundus RE**: Faintly visible disc. Rest details not appreciable
- **Fundus : LE**
  - Media – Clear
  - DM-distinct , circular
  - CDR-0.3:1
  - BV-arteries and veins-WNL
  - FR-present
  - GF-WNL

**Investigations**
- Hb – 17.5 mg/dl
- TLC – 9200/ cumm
- DLC – N-60, L-29, M-06, E-05, B-00
- Platelet – 3.4 lacs/ mm
- RBS- 102 mg/dl
- Serum urea –23 mg/dl
- Serum creatinine –0.65mg/dl
- ESR- 22mm at the end of one hour

USG B scan BE: WNL

**Diagnosis**
- RE : Graft failure
- LE : WNL

**Treatment**
- 2nd keratoplasty was done in january 2020
- On post-op day 1 patient was started on inj MPS 1gm OD for 3 days, iv antibiotics
- Locally RE
e/d moxifloxacin 0.5% qid
e/d prednisolone 1% hrly
e/d cmc 0.5% 2 hrly
e/d timolol 0.5% bd
e/o tacrolimus 0.03% bd  
e/o HPMC 0.2% hs

**Cornea**

**On post op day 1**

- Graft cornea – size 7.5mm, mildly hazy due to edema
- Host cornea – edematous
- G H junction –edematous
- 16 (10-0) interrupted sutures present; few knots exposed at 3,6,7 o’clock positions
- Shape – normal
- Curvature – normal
- Transparency – decreased due to edema
- Surface – regular
- Vascularisation – absent
- Deposits – absent
- Corneal sensation – absent
- Fs stain – negative
- No signs of rejection are seen

**Conclusion**

- Keratoplasty after chemical injury is a poor prognostic factor for the success of keratoplasty. Graft rejection and failure are disastrous complications of keratoplasty. But failure usually occurs following rejection.

**Purpose of this Case Report**

- To throw light on a rare case of graft failure without rejection as a consequence of chemical injury.