



SDI Review Form 1.6

Journal Name:	Ophthalmology Research: An International Journal
Manuscript Number:	Ms_OR_41495
Title of the Manuscript:	Repair of severe melting ulcers with high intensity UV-pen (18 to 60 mW/cm ²) corneal cross-linking (CXL) and amniotic membrane graft
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	Line 109 : there is ? without contexto Line 116: ideal Questions: 1 – How did you measure corneal pachymetry? 2 – If corneal pachymetry was under 400 micras, did you take any safety measures? 3 – The problem of accelerated crosslinking is the lack of oxygen, so can you tell me the benefit of higher intensity CXL? 4 – How did you measure the distance beetwen córnea and the UV-PEN? How many cm?	Errors were Fixed. Reply to Qs: 1. See revised text. We do not have a pachymetry, and the corneal thickness was was estimated with a slit lamp biomicroscopy. 2. As stated in Method section: CXL treatment was avoided for areas extending to deep corneal stroma and Descemet's membrane. These deep corneal lesions were further treated with application of the Omnigen grafts... 3. The benefit of higher intensity CXL is to shorten the CXL treatment duration while maintaining the similar CXL efficacy (based on so called BR-law). The role of oxygen has been re-investigated recently as follows. (following text were added to our revised article, in the Discussion Section) Conventionally believed that the problem of accelerated crosslinking (ACXL) is the lack of oxygen, based on the work of Kling et al that oxygen-mediated type-II CXL plays the critical role of CXL. However, the kinectic model of Kamaev et al and more recent theory of Lin [proposed that CXL is predominated by type-I, which does not require oxygen, and it is the predominant pathway of CXL efficacy, while oxygen (in type-II) only plays a limited and transient role. Moreover, Wernli et al found a relatively constant effect of CXL from 3 mW/cm² through roughly 45 mW/cm². Therefore, the fast depletion of oxygen in ACXL might reduce the type-II efficacy, however, it would not affect the type-I predominant CXL efficacy (which does not require oxygen). 4. following text is added : The focal-distance is approximately 2 to 2.5 cm depending on the spot size. This focal position can be easily defined when the UV spot has a nice circle with sharp edge.
Minor REVISION comments		
Optional/General comments		