

18th Asia Pacific

OPHTHALMOLOGISTS ANNUAL MEETING

July 29-30, 2019 | Melbourne, Australia

Efficacy of corticosteroid administration in reducing corneal scarring in corneal ulceration: Evidence based case report**Michelle Eva Rebeca Natalia and Arin Aulia Rahma**¹University of Indonesia, Indonesia²Dr. Cipto Mangunkusumo Hospital, Indonesia

Introduction & Objective: Corneal scarring is one of the most common complications occur in corneal ulceration that has a great impact on visual acuity. Despite beneficial evidence of the steroids usage in reducing inflammation in corneal ulcer treatment, there is no universal agreement on whether the administration of corticosteroid is a definitive adjunctive therapy in treating corneal ulceration. The objective of this review is to evaluate the use of corticosteroid as a conjunctive treatment in antibiotics to reduce corneal scar size in corneal ulceration cases.

Method: A computer-based search was conducted from online databases including Pubmed, Scopus, ProQuest and Cochrane. Studies included were those written in English and limited to human participants. All studies included in this review were specific to patients with culture-confirmed bacterial corneal ulcers or bacterial keratitis. Studies were considered eligible if it reviewed the strength of evidence or compared the effect of adjunction of steroids as opposed to topical antibiotic monotherapy in corneal ulcer treatment to reduce corneal scar or infiltrate size.

Results: Four studies were deemed eligible to be included in this review. All studies were RCTs. Three studies reported non-significant findings on the benefit of corticosteroid as adjunctive therapy in reducing scar size. However, one study revealed that there was significant larger scar size after 3 months of steroid administration in *Nocardia* cases. One study also revealed significant effect of corticosteroids as adjunctive therapy in delaying time to re-epithelialization.

Conclusion: This review found that evidence for usage of corticosteroids in reducing corneal scarring incidence or scar size in corneal ulcers is still inconclusive. It is advised for future studies to address whether different dosing of corticosteroids and treatment duration may have significant effect on both short term and long-term outcomes of corticosteroid usage.

michelleevan@gmail.com

Notes: