

7TH INTERNATIONAL VETERINARY CONGRESS

September 04-05, 2017 | Paris, France

Evaluation of topical corticosteroid in management of corneal alkali burn ulcers in guinea pig

Mahan Bitaraf¹, Vahid Fathipour², Mohammadreza Ferdows¹, Seyyed Javid Ale davolran², Sima nikkhah¹ and Mahmoud Khajeh¹

¹Paytakht Pet Hospital, Iran

²Tehran University, Iran

This study was performed to evaluate adding of steroidal or non-steroidal anti-inflammatory agents or topical medroxyprogesterone acetate to tetracycline and Vit C regime for management of ocular alkali burns. Alkali wounds were inflicted on the central cornea of guinea pigs by applying a round filter paper, 12mm in diameter, soaked in 1M NaOH for 30 sec. Only one eye in each guinea pig was used. A total of fifty guinea pigs were divided into five groups of ten animals. Ten guinea pigs after the alkali burn were designated as the control group (without treatment). In other groups, topical tetracycline and systemic Vitamin C were used. Besides them, in group A, topical medroxyprogesterone acetate 1%, in group B, topical prednisolone acetate 1% and in group C, topical diclofenac was used. In group D, corneal ulcers were treated just with tetracycline and Vitamin C. Clinical outcome was monitored daily by corneal opacity, duration of blepharospasm, corneal vascularization and duration of ocular discharge. After three weeks, corneas were excised for histopathologic analysis. Samples were monitored by evaluating of corneal thickness (μ), numbers of epithelial rows, keratocyte density, stromal vascularization, stromal inflammation and stromal collagen arrangement. Comparative evaluation of groups showed that groups A, B and C had significantly lower discharge days and groups B and C had significantly shorter duration of blepharospasm than control group. In microscopic evaluation of corneas, group B and C had significant lower degree of corneal vascularization and group B had significant lower degree of corneal inflammation than control group. In conclusion, the regimen of topical prednisolone 1% combined with vitamin C and tetracycline may have therapeutically valuable in early (first three weeks) treatment of alkali burn cornea.

Biography

Mahan Bitaraf working at Paytakht Pet Hospital, Iran. His international experience includes various programs, contributions and participation in different countries for diverse fields of study. His research interests reflect in his wide range of publications in various national and international journals.

bitaraf@iransava.ir

Notes: