

BJO at a glance

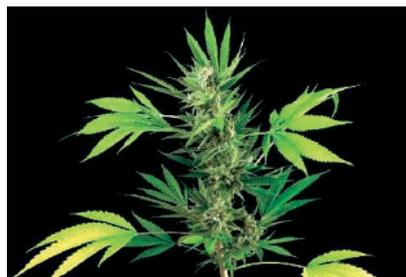
DOXYCYCLINE, DOES IT REPAIR OCULAR SURFACE?

Doxycycline is a broad spectrum antibiotic that chelates metal ions and is frequently used as part of treatment of ocular surface diseases. Its therapeutic value has been attributed to an ability to inhibit matrix metalloproteinase activity and both matrix metalloproteinase and interleukin-1 synthesis. Smith and Cook studied corneal epithelial cell and keratocyte cultures and in this study they demonstrated that the minimum concentration of doxycycline required to inhibit the activities of corneal matrix metalloproteinase is similar to that required to inhibit these enzymes in other tissues. If this concentration is achievable in the tears of patients treated systemically for ocular surface disorders in addition to inhibiting matrix metalloproteinases that have been pathologically activated doxycycline may kill migratory keratocytes or fibroblasts responsible for the formation of scar tissue as well as promote complete coverage of the ocular surface with epithelial basal cells.

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FORNIX BASED V LIMBUS BASED CONJUNCTIVAL FLAPS AND TRABECULECTOMIES

Early postoperative bleb leak is a common complication of trabeculectomy. It has been reported that postoperative



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bleb leaks are much greater with fornix based trabeculectomies than with limbus based trabeculectomies. This observation has led some to suggest that early postoperative leakage of fornix based conjunctival flaps has an adverse outcome on the function of trabeculectomies. In a prospective observational series of sequential trabeculectomies Henderson and coworkers demonstrated that there was no adverse effect of early postoperative bleb leak in terms of surgical outcome. Although this study was not randomised nor double blind the study group was large.

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DOES IT MATTER HOW MUCH CATARACT SURGERY YOU PERFORM?

High case volume has been associated with better outcomes for a variety of procedures and conditions in non-ophthalmic subspecialties—including coronary angioplasty, various types of cancer surgery, etc. In the ophthalmic literature, however, there is very little to document the importance of volume and outcome. Habib and coworkers report the results of cataract surgery performed by six consultant surgeons from 1996 to 2001. In this study, the data would suggest that there is a possible relation between the volume of surgery and the outcome as measured by complication rates when performing phacoemulsification. It should be noted that these findings are from a single surgical unit and may not be applicable to other units.

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TREATMENT OF OPTIC NEURITIS UNASSOCIATED WITH DEMYELINATING DISEASE

Optic neuritis is usually a sudden unilateral visual loss produced by inflammatory changes within the optic nerve. In patients with optic neuritis and demyelinating disease it has been demonstrated that systemic corticosteroids reduce the period of disability although apparently do not improve the long term outcome. Some patients placed on corticosteroids for the treatment of optic neuritis become steroid dependent. This obviously has significant potential serious side effects. Myers and coworkers report 10 patients with corticosteroid dependent optic neuritis. In this study the use of systemic immunosuppression appeared to be safer and a more effective treatment alternative than chronic oral corticosteroid use in these patients. The antimetabolites used were methotrexate and azathioprine. The authors suggest that corticosteroid sparing therapy should be considered in cases of corticosteroid dependent optic neuritis not associated with demyelinating disease.

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CANNABINOIDS AND OCULAR DISEASE

Numerous studies have confirmed that different cannabinoids and some synthetic cannabinoids can reduce the intraocular pressure when administered systemically and topically. Cannabinoids have the potential to become a useful treatment for glaucoma. They seem to have a nerve protecting property as well as an ability to reduce intraocular pressure. Several challenges remain, however, in order to avoid unwanted systemic side effects. There are good reasons to investigate these chemical compounds thoroughly as the potent antioxidant properties of cannabinoids might very well be beneficial in age related macular degeneration. Moreover, cannabinoids have been shown to inhibit angiogenesis leading to a decrease in the expression of proangiogenic factors such as VEGF. This might prove to be a useful anti-VEGF form of therapy for disorders with choroidal neovascularisation. These possibilities are reviewed by Tomida and coworkers.

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