

# A randomised controlled trial of adjunctive triamcinolone acetonide in eyes undergoing vitreoretinal surgery for open globe trauma – the ASCOT study

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## Plain language summary

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## Plain language summary

Despite advances in surgical techniques, eye trauma remains a leading cause of blindness and visual impairment. The main cause of trauma is a scarring process within the eye – proliferative vitreoretinopathy. There is good evidence from laboratory work and small-scale clinical studies that the addition of a steroid medication, triamcinolone acetonide, given in and around the eye at the time of surgery for eye trauma, can reduce the incidence of proliferative vitreoretinopathy scarring and improve the outcomes of surgery. The Adjunctive Steroid Combination in Ocular Trauma or ASCOT study was a multicentre clinical trial designed to test the use of triamcinolone acetonide as an addition to surgery to improve outcomes in eyes with ‘open globe’ penetrating injuries. A total of 280 patients were recruited and randomised to receive standard surgery or surgery with the additional steroid (triamcinolone acetonide). No benefit was found from the addition of the steroid medication. The addition of steroid medication was not good value for money. Secondary outcome measures suggested that triamcinolone acetonide may have had a negative effect on outcomes, although this may have been due to the presence of more severe cases amongst the patients allocated to receive the additional steroid (triamcinolone acetonide). The use of adjunctive triamcinolone acetonide in eye trauma cases undergoing surgery is therefore not recommended. Future studies with different additional medications and/or more targeted case selection are indicated to improve outcomes for eyes experiencing penetrating trauma.



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