ABSTRACT

TITLE:
Comparison of the efficacy and safety of 0.25 and 0.5 ml of supratarsal injection of triamcinolone acetate in the treatment of severe and refractory vernal keratoconjunctivitis (VKC).

PURPOSE:
To compare the subjective relief of symptoms and objective improvement in clinical signs between the dosage groups.
To assess and compare the complications, if any, in the two dosage groups, especially intra-ocular pressure rise.

METHODS:
A randomized, prospective, comparative study of 60 eyes of 48 patients with severe and refractory VKC were enrolled. They were divided equally into two arms of 30 eyes, each receiving a dosage of 0.5ml (20 mg) and 0.25ml (10 mg) respectively of triamcinolone acetate in the supratarsal form. Complete ocular evaluation, including measurement of intra-ocular pressure using a non contact tonometer, was undertaken prior to the injection and at 3 weeks, 3 months and 6 month follow-up.

RESULTS:
The mean age of eligible participants was 17.5 years. There was a male preponderance (90%). 74% received supratarsal injection in one eye while 26% received sequential injections in both eyes. The pan/ mixed form was most commonly encountered 81.7%. The
disease was seasonal in 78.3%. 8.3% of eyes had associated keratoconus. Itching was the predominant symptom (95%). Shield ulcers were present in 11 eyes (18%). There was no statistically significant difference in the improvement of signs and symptoms in both the groups. Steroid response was observed in 8 eyes (13.33%), out of which 6 eyes belonged to the 0.5 ml group. 1 eye in the 0.5 ml group developed steroid induced glaucoma. There was 1 treatment failure who belonged to the 0.5 ml group. Posterior sub capsular cataract was observed in 3.3% (2 eyes of the same patient).

**Conclusion:**

It is recommended to use 0.25 ml of triamcinolone acetate for all refractory cases of VKC, as it has similar efficacy and a better safety profile than 0.5 ml. However, in the presence of severe VKC with shield ulcers, 0.5 ml of triamcinolone is recommended for faster healing.