# Long-term topical ciclosporin 0.1% (Ikervis) use in patients with severe dry eye disease in Glasgow, Scotland

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## Background

Dry eye disease is a multifactorial disease with loss of tear film homeostasis and importantly involves an element of ocular surface inflammation[(1)]. Topical Ikervis 0.1% was approved in 2015 to treat the inflammatory component of dry eye disease, refractive to topical lubricant therapy. Frequently, patients with poor control receive topical steroid courses to improve symptoms, but repeated steroids come with additional risks such as raised intraocular pressure and cataract development. As the landmark studies only reported 6 months follow up [(2)(3)], we wanted to evaluate our patients who had persisted with long-term Ikervis.




## Methods

We retrospectively reviewed our patients with severe dry eye in the Tennent Institute of Ophthalmology Glasgow (Scotland) who were managed with daily Ikervis for approximately 2 years. Patients were commenced on Ikervis between February 2016 - May 2018 and under the care of two named consultant ophthalmologists. In addition to Ikervis, we also reviewed concurrent lubricant use and rescue steroid therapy.

| Patient details | |
|---|---|
| Male | 8 |
| Female | 18 |
| Age (mean) in years | 61 |

## Results

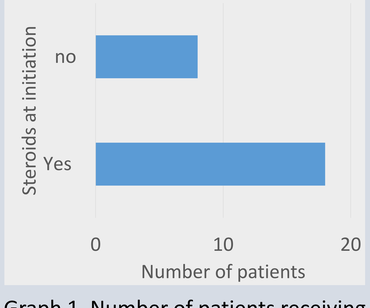
Twenty six patients were identified with >2 year follow up (out of a total of 53 patients prescribed Ikervis), with mean age 61 years (18 female, 8 male). Common underlying disease processes included Sjogrens syndrome +/- associated connective tissue disorders, blepharitis and allergic eye disease (table 1).

| Cause of Dry Eye | Number of Patients |
|---|---|
| Sjogrens' Syndrome / RA / other connective tissue disorders | 10 |
| Blepharitis / lid margin disease | 7 |
| Allergic eye disease | 3 |
| Thyroid eye disease | 1 |
| Chemotherapy-related dry eye | 1 |
| Ectodermal dysplasia | 1 |
| Thygeson's disease | 1 |
| Vitamin A deficiency | 1 |
| Pterygium | 1 |

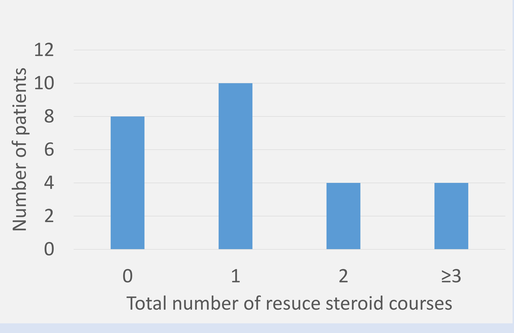
Table 1. Underlying conditions leading to dry eye disease

By 2 years since Ikervis initiation, 6 (11%) had stopped treatment due to medication intolerance (drop instillation discomfort). No severe adverse reactions were recorded. A further 23 patients had no available follow up information available on their electronic health records. All 26 patients remained on topical lubricants at least four times per day throughout the study period, with quite marked heterogeneity in agents used and drop frequency.

Eighteen patients received steroids at time of Ikervis initiation (commonly tapered, with a reducing dose over time) (Graph 1). Eighteen patients (69%) also required at least one rescue course of steroids to treat worsening dry eye symptoms. Almost half of these (8; 31%) required 2 or more pulsed steroid courses (Graph 2).




Graph 1. Number of patients receiving steroid therapy at same time as Ikervis initiation




Graph 2. Rescue steroid courses required to help control symptoms

## Conclusion

Long-term topical Ikervis treatment was well tolerated and stabilised the ocular surface and symptoms in this cohort of patients with severe dry eyes. Rescue steroid therapy was avoided in 31%. More prospective research is required to demonstrate the steroid sparing benefits of long-term topical Ciclosporin.

**References**

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(Image taken from Santen website)