



## ciclosporin eye drops (VERKAZIA<sup>o</sup>) in severe vernal keratoconjunctivitis

Different adverse effects from those of a corticosteroid

### POSSIBLY HELPFUL

In a randomised trial in children and adolescents with severe vernal keratoconjunctivitis, eye drops containing *ciclosporin* at a concentration of 1 mg/ml relieved some symptoms in a minority of patients after 4 months, compared with the same eye drops without *ciclosporin*. It has not been shown to affect the clinical complications of the disease. *Ciclosporin* eye drops mainly provoke eye disorders, including pain and pruritus. A longer-term risk of ocular or periocular cancer has not been ruled out. In practice, for patients with vernal keratoconjunctivitis and very bothersome symptoms, when continuing treatment with corticosteroid eye drops is not advisable due to adverse effects, eye drops containing *ciclosporin* at a concentration of 1 mg/ml is an option with limited efficacy but a different set of ocular adverse effects. The summary of product characteristics (SPC) for Verkazia<sup>o</sup> recommends that patients who could become pregnant use effective contraception.

### VERKAZIA<sup>o</sup> - *ciclosporin* eye drops, emulsion

• 1 mg/ml (i.e. 0.1%) of *ciclosporin* (the excipients include cetalkonium chloride)

#### ■ immunosuppressant

■ **Indication:** "severe vernal keratoconjunctivitis in children from 4 years of age and adolescents". [EU centralised procedure - orphan drug] (a)

Eye drops containing *ciclosporin* at a concentration of 1 mg/ml (i.e. 0.1%) (Verkazia<sup>o</sup>, Santen) have been authorised in the European Union for severe vernal keratoconjunctivitis in children from 4 years of age and in adolescents.

**Very bothersome symptoms and potentially serious complications.** The main symptoms of vernal keratoconjunctivitis are eye pain, itching, tearing, burning sensation, thick mucus discharge, foreign body sensation, photophobia, and blurred vision. It almost always affects both eyes (1,2).

Vernal keratoconjunctivitis is a rare seasonal allergy, characterised by chronic inflammation of the surface of the eye, usually with flare-ups in spring and summer. It mainly affects children, usually before 10 years of age, and is more common in

boys. Vernal keratoconjunctivitis generally resolves with age, at the onset of puberty. It is more common in regions with warm, dry climates such as the Mediterranean basin, Central and West Africa, the Middle East and certain Asian countries. It is triggered by allergens such as dust or pollen, or by irritants such as wind, sunlight and seawater (1-3).

In severe forms, vision is impaired and symptoms are present most of the time. Corneal damage, such as ulceration or opacification, can lead to blindness. Severe vernal keratoconjunctivitis has a major impact on everyday life (1-3).

**Severe forms: corticosteroid eye drops for short periods.** Some non-pharmacological measures help relieve the symptoms of vernal keratoconjunctivitis, in particular: avoiding exposure to triggering factors, including wearing sunglasses, a hat that shades the eyes, or swimming goggles; avoiding rubbing the eyes; applying cold damp compresses; and rinsing the eyes with normal saline. Artificial tears sometimes also relieve symptoms (1-3).

Eye drops containing an anti-allergy drug, in particular a cromone such as *sodium cromoglicate* or an antihistamine, are the first-choice pharmacological treatment. Corticosteroid eye drops are an option for severe vernal keratoconjunctivitis, but should only be used for a short time, mainly due to the risk of serious ocular adverse effects, such as cataracts, glaucoma and infections (1,2,4).

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*a-This product has the same composition and concentration as Ikervis<sup>o</sup>, which has been authorised for the treatment of severe keratitis in adults with dry eye disease (keratoconjunctivitis sicca) (refs 4, 5). Verkazia<sup>o</sup> is authorised for the treatment of a rare disease and has orphan drug status, which is not the case for Ikervis<sup>o</sup>.*

### Literature search up to 12 January 2021



In response to our request for information, Santen provided us with administrative documents and packaging items.

- 1- Hamrah P et al. "Vernal keratoconjunctivitis" UpToDate. www.uptodate.com accessed 9 September 2020: 21 pages.
- 2- National Organization for Rare Disorders "Vernal keratoconjunctivitis" www.rarediseases.org accessed 10 July 2020: 5 pages.
- 3- HAS - Commission de la Transparence "Avis-Verkazia" 22 January 2020: 22 pages.
- 4- EMA - CHMP "Public assessment report for Verkazia. EMEA/H/C/004411/0000" 20 July 2017: 77 pages.
- 5- Prescrire Editorial Staff "Ciclosporin eye drops and dry eye syndrome. The risks of an immunosuppressant, but no efficacy" *Prescrire Int* 2017; **26** (181): 96-97.