

CASE REPORT

A RARE CASE REPORT OF IDIOPATHIC UNILATERAL GIANT PAPILLARY CONJUNCTIVITIS

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ABSTRACT: Giant papillary conjunctivitis usually presents as a bilateral condition most commonly in contact lens wearers, exposed sutures or ocular prosthesis. Rarely can it present as a unilateral condition. We report a case of idiopathic unilateral giant papillary conjunctivitis.

KEYWORDS: Giant papillary conjunctivitis, idiopathic, unilateral, contact lens, allergic, punctate epithelial erosions.

INTRODUCTION: Giant papillary conjunctivitis (GPC) is a non-infectious inflammatory disorder involving the superior tarsal conjunctiva. It was originally named for the presence of 'giant' papillae (1.0 mm or greater in diameter) along the upper tarsal surface. This syndrome is defined by a typical complex of symptoms associated with inflammation and anatomic changes on the upper tarsal conjunctiva. It is usually bilateral, but unilateral cases have been reported.¹

CASE REPORT: 18 year old male, presented with h/o itching and pricking sensation in right eye since 3 months. He used eye drops of unknown nature for the same for 2-3 weeks without any symptomatic relief. No h/o use of contact lens or surgical intervention in RE.

On slit lamp bio microscopic examination of RE revealed:

- Lids – normal
- Conjunctiva

Fig. 1 to 4: Bulbar conjunctival pigmentation.

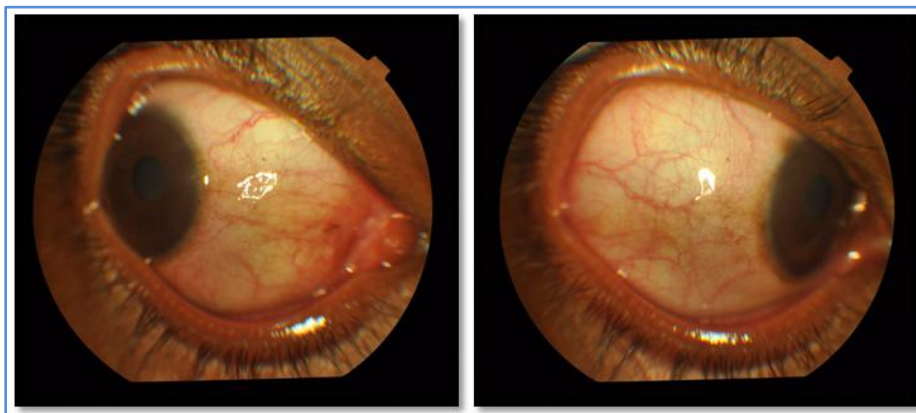


Fig. 1

Fig. 2

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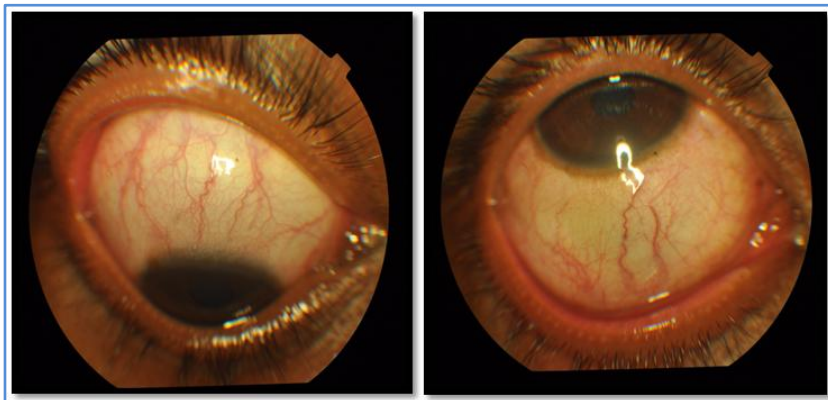


Fig. 3

Fig. 4

TARSAL PART: Injection with loss of normal vascular pattern with thickening of conjunctiva, well defined, irregular, elevated lesions in the upper palpebral conjunctiva, flat topped, approximately 1mm size, irregularly spaced suggestive of giant papillary reaction. (Fig 5, 6)

Fig. 5: Giant papillae – RE upper tarsal conjunctiva.



Fig. 5

Fig. 6: Superficial punctate keratitis – RE.

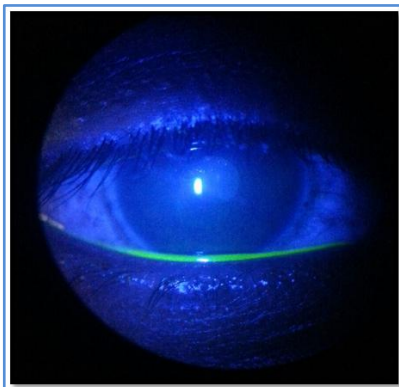


Fig. 6

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- Cornea – superficial punctate keratitis with fluorescein staining and cobalt blue filter.
- Rest of the ocular examination was within normal limits.
- Examination of left eye revealed no significant abnormality.

Fig. 7: Normal upper tarsal conjunctiva – left eye.

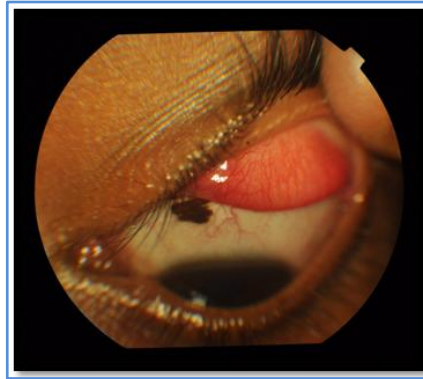


Fig. 7

- Visual acuity in both eyes was 6/6 unaided.
- Complete hemogram with peripheral smear revealed normocytic normochromic picture with eosinophilia.

DISCUSSION: Giant papillary conjunctivitis first described by Spring¹ in 1974 and term coined by Allansmith et al in 1977.

GPC is considered one of the five groups of allergic ocular diseases (ocular hayfever, atopic conjunctivitis, vernal keratoconjunctivitis and contact allergies).

GPC is usually bilateral, but in approximately 10% of patients it is either unilateral or markedly asymmetric. Spring¹ became the first to report an allergic-like reaction on the upper tarsal plate in 78 of 170 wearers of soft contact lenses. Although it is predominantly associated with soft contact lens wear, it has been reported in patients with rigid lenses, ocular prostheses, exposed sutures following ocular surgery, an extruded scleral buckle, filtering blebs, band keratopathy, corneal foreign body, limbal dermoid, and cyanoacrylate tissue adhesive.

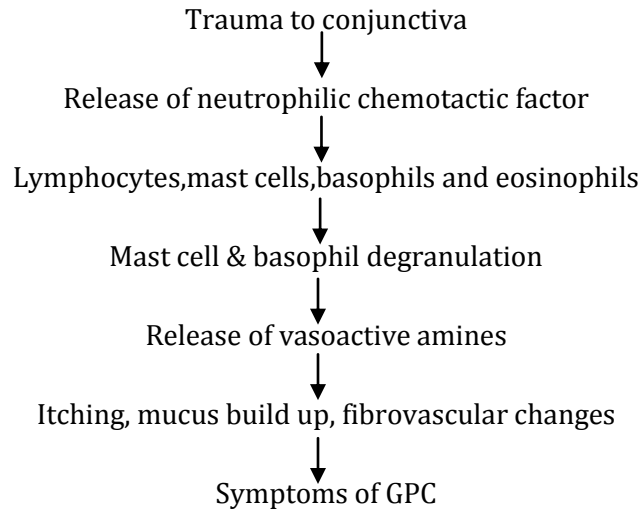
The typical complaints of patients with GPC consist of increased lens awareness, excessive lens movement, mucus production in association with ocular irritation, redness, burning and itching. Examination of the upper tarsal conjunctiva reveals inflammation and the presence of papules larger than one third of a millimeter. In the early stages, the symptoms of GPC may precede the signs.²⁻¹³

Allansmith and co-workers² have defined four classifications:

- The satin appearance- conjunctiva has a smooth surface devoid of papillae.
- A uniform papillary appearance, in which small papules, 4 to 8 mm can be detected with the aid of fluorescein.
- A non-uniform papillary appearance in which some of the papillae are larger.
- The presence of giant papules, which are larger than 1 mm.

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Pathophysiology: Theories involving immune and mechanical mechanisms have been espoused in the pathophysiology of GPC. Most theories suggest that proteinaceous material must be deposited on the lens surface for either the allergic or the mechanical mechanisms to take effect.



Begley and co-workers¹⁴ performed a retrospective study of patients diagnosed with GPC during 1987 and 1988. Thirty-five of the 68 patients reported allergies to contact lens solutions, medications, molds, pollens, or animals. Out of a similar number of contact lens wearers who did not have GPC, only 21 individuals reported having such allergies.

HISTOPATHOLOGY STUDIES: the epithelium shows a reduction in the number of goblet cells and infiltration with mast cells, eosinophils, basophils, and lymphocytes. The stroma has an increased number of inflammatory cells, lymphocytes and plasma cells, eosinophils and basophils, and degranulating mast cells. In the advanced stages there is proliferation of fibroblasts and deposition of collagen.

Giant papillary conjunctivitis and vernal keratoconjunctivitis have frequently been compared with each other because there are a number of similarities clinically and histopathologically.

TREATMENT OPTIONS:² Modifying the patient's contact lens care routine and wearing schedule will often relieve many of the signs and symptoms of giant papillary conjunctivitis. Removal of offending agents -Contact lens wear, exposed sutures and adhesive. Topical & injectable corticosteroids, NSAIDs, mast cell stabilizers, histamine receptor blockers, and vasoconstrictors, immune modulators like tacrolimus eye ointment can be used alone or in combination.

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