

## Conjunctivochalasis

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### Abstract

In most ophthalmology practices, we come across patients who are senile, as senile cataract is among the common causes of visual impairment in the adult population. It is imperative that we give due importance to the ocular surface in these patients while treating the patients as postoperatively, they may not be satisfied if the ocular surface is not healthy despite best possible correction. Conjunctivochalasis is one such entity that is often too many times ignored and untreated. The ophthalmologists should be aware of this condition and manage it appropriately.

**Keywords:** Ocular surface; Conjunctivochalasis; Dry Eye syndrome

### Definition

Conjunctivochalasis or Conjunctival chalasis is a fold of redundant conjunctiva between the globe and lower eyelid.

### Predisposing factors

Conjunctivochalasis is usually seen in older patients. Laxity of the conjunctival tissue due to ageing can lead to the development of conjunctivochalasis.

Other factors which can lead to conjunctivochalasis include diseases that cause frequent rubbing of the eyes like allergic conjunctivitis, blepharitis etc. It has also been proposed that exposure to UV radiations could be a cause. Previous trauma to the eye and history of surgery have also been associated with the stretching and loosening of conjunctiva [1].

### Pathophysiology

Increases degradation of the conjunctival connective tissue due to accumulation of MMP (matrix metalloproteinases) is associated with the development of conjunctivochalasis. It is seen that, in conjunctivochalasis, there is a shift in the balance between MMP and TIMP (Tissue Inhibitors of metalloproteinases) [2].

### Clinical manifestations

Clinical manifestations can range from asymptomatic to worsening of the tear film and in very severe cases, mechanical disruption of the tear film. Majority of the times, it is overlooked as it does not cause any symptoms but, in a few cases, patient presents with foreign body sensation, burning sensation in the eye, dry eyes. With increasing severity, the fold of conjunctiva may block the punctum leading to constant tearing. In very severe cases there may be blurred vision due to the disruption of the tear film which is important for good vision. It can also lead to mucous discharge, ocular fatigue, dryness of eye and subconjunctival hemorrhage.

A recent classification system called the four tier Zhang system can be used to classify the severity of conjunctivochalasis. Grade 1 suggests no persistent conjunctival folds, Grade 2 stands for one small fold, Grade 3 signifies two or more folds not higher than the tear meniscus and Grade 4 suggests multiple folds that stand higher than the tear meniscus [3].

### On examination

Slit lamp examination shows prolapsed or pleating of conjunctiva over lower lid margin. It is usually seen inferotemporally or inferonasally. It is rarely seen superiorly. Conjunctival movement can

be appreciated on the globe easily by pressing it with eyelid moving up and down. Diagnosis can be established clinically based on the slit lamp examination itself.

Fluorescein staining can help in visualising tear film movement and also to appreciate finer folds of conjunctiva. Although not necessary for diagnosis, ocular coherence tomography of the anterior segment can be performed to evaluate the tear meniscus height over the loose conjunctival tissue [4].

### Differential diagnosis

Dry eye syndrome, Meibomian gland dysfunction, Sjögren disease, Thyroid eye disease can mimic the symptoms of conjunctivochalasis and hence these should be ruled out.

To differentiate from dry eye syndrome, a history of worsening of symptoms during the evening, in upgaze should be taken which is suggestive of dry eye syndrome whereas a history of symptoms pertaining throughout the day, in downgaze and with frequent blinking suggests conjunctivochalasis.

Meibomian gland dysfunction can also present with the symptoms of dry eye and is usually associated with blepharitis.

To rule out Sjögren disease a history of dryness of mouth along with dryness of eyes should be taken whereas Thyroid eye disease is associated with puffiness of lids, chemosis, staring gaze, retraction of lids etc along with changes in the thyroid function tests.

### Treatment

- Treatment is based on the severity of symptoms.
- Asymptomatic patients usually require no treatment.
- Patients with mild symptoms should be administered lubricating eye drops as well as anti-inflammatory agents.
- In case of severe symptoms, surgical management can be done which includes conjunctival excision and resection in a semi lunar pattern, 5mm posterior to the limbus to avoid destruction of the limbal stem cells [6].
- Other methods include elliptical excision of redundant conjunctiva and suturing with absorbable suture [6] or fibrin glue [7].
- Thermocautery can also be performed wherein the redundant conjunctiva is grasped with forceps and cautery is applied over it to cause contraction of the redundant tissue [8]. Thermocautery is proposed to be better than excision as it is minimally invasive and the redundant tissue can be destroyed locally without destroying any surrounding tissues.

### Conclusion

Conjunctivochalasis is an often undiagnosed and ignored. By means of this short review, it is re-emphasised that conjunctivochalasis can be distressful to the patient and also may lead to dissatisfactory post operative outcomes. Hence, it is important that it is managed effectively to provide a healthy ocular surface to the patients.

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