

# Self-Inflicted Bilateral Ocular Surface Injury: Two Case Reports

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## Abstract:-

### ➤ Aim:

To present two cases of self-inflicted ocular surface injury.

### ➤ Case report:

First case was a 13-year-old girl with reduction of vision in both her eyes (? counting finger) and redness with conjunctival laceration in the temporal area, surprisingly, without any pain for one month. The patient denied any history of trauma and lives in a girls hostel at that school. On examination, subjective visual acuity was in both eyes (?) counting finger one foot, brisk pupillary reaction, quiet anterior chamber, clear lens with normal fundi of both eyes. Most probably self-induced conjunctival injuries, she used her finger-nail for this purpose and looks accessible part of the ocular surface. The second case was a 55-year-old woman presented with a foreign body sensation, watering, redness and blurring of vision in both eyes for two weeks. The patient denied any history of trauma, subjective visual acuity was 6/36 in both eyes, congested conjunctiva, brisk pupillary reaction, quiet anterior chamber, senile early cataractous lens with normal fundi of both eyes. Fluorescein stain showed 3x4 mm epithelial defect over the lower part of both corneas. She was using a paper napkin to sweep her eyes for removal of foreign bodies frequently and injured by herself.

They were given treatment with broad spectrum topical antibiotic eye drops, weak corticosteroid and artificial tear substitute and strong counseling. The lesions healed within 2 weeks.

### ➤ Conclusion:

Self-inflicted ocular injuries are very rare, and usually need immediate medical treatment, strong counseling and psychiatrist consultations.

**Keywords:-** Self-Inflicted Injury, Ocular Surface, Functional Disorders, Organic Disorders, Strong Counseling.

## I. INTRODUCTION

Self-inflicted ocular injury produced by the patient intentionally to assume a sick role and earn some benefits either to gain emotional and/or financial gain (malingering) [1]. This injury occurs from very minor conjunctival or corneal lesion, even traumatic cataracts, retinal detachment, dislocation of lens and severe self-mutilation such as enucleation [2,3]. Different literature describes self-induced ocular injuries which are uncommon and may be associated with functional disorders such schizophrenia, obsessive-compulsive disorder, mental depression, mental retardation, drug related psychosis and also in patients with some organic diseases like neurosyphilis, encephalitis, epilepsy, Lesch–Nyhan syndrome, diabetes mellitus with renal involvement [4,5]. Most commonly, self-induced injuries occur in young people [5]. Patients may use their own finger, nail, needle, razor, scissor, glass pieces, paper and so many things for this purpose [6].

Here we describe two cases with self-induced ocular surface injury with repeated induced trauma with self-nail over the temporal conjunctiva of both eyes in the first case and repeated sweeping by paper napkin over the lower part of the corneas of both eyes resulting in corneal abrasion.

## II. CASE PRESENTATION

### ➤ Case One

A thirteen-year-old girl came to our department with a marked reduction of vision in both her eyes (? counting finger at one foot) and redness with conjunctival laceration in the temporal area, surprisingly, without any pain [figure A,B] for one month. The patient denied any history of trauma. The patient reads in seventh grade and lives in a girls' hostel at that school. On examination, subjective visual acuity was in both eyes (?) counting finger at one foot, brisk pupillary reaction, quiet anterior chamber, clear lens with normal fundi of both eyes. Most probably self-induced conjunctival injuries, she used her finger nail for this purpose and looks accessible part of the ocular surface. She was given treatment with broad spectrum topical eye drops, moxifloxacin 0.5% every four hourly, and an artificial tear substitute also every four hourly in both of her eyes and counseled her not to touch this area with her finger or any other things. After a week, her vision (subjective) improved

to 6/24 and 6/36 in right and left respectively. Her conjunctival lesion improves and there is a small granuloma formation indicated by a white arrow [fig. C]. Again, the patient treated with topical moxifloxacin eye drop 0.55 six hourly for two weeks, artificial tear for next one month and adding weak corticosteroid, topical fluorometholone eye drop 0.1% six hourly a day for two weeks. Granuloma resolved, conjunctival lesion healed and visual acuity improved (probably original VA) to 6/6 in the right eye and 6/6 in the left eye with a refraction of -0.75 cyl at 800 at final follow up [fig. D, E].

#### ➤ Case Two

A fifty-five-year-old woman came to our department with a foreign body sensation, watering, redness and blurring of vision in both eyes for two weeks. The patient denied any history of trauma. On examination, subjective visual acuity was 6/36 in both eyes, congested conjunctiva, brisk pupillary reaction, quiet anterior chamber, senile early cataractous lens with normal fundi of both eyes. Fluorescein stain showed 3x4 mm epithelial defect over the lower part of both the corneas [fig. F,G, indicated by white arrows]. She was using a paper napkin to sweep her eyes for removal of foreign bodies frequently and injured by herself. She was given treatment with broad spectrum topical eye drops, moxifloxacin 0.5% every four hourly and an artificial tear substitute also every four hourly in both of her eyes and counseled her not to touch this area with tissue napkin or any other things. After a week, her vision improved to 6/18 in both eyes, epithelial defect of cornea healed [fig. H,I]. Again, the patient treated with topical moxifloxacin eye drop 0.55 six hourly for two weeks, artificial tear for next one month and adding weak corticosteroid, topical fluorometholone eye drop 0.1% six hourly a day for two weeks.

### III. DISCUSSION

Self-induced ocular injuries are very rare but important and challenging to diagnose. Sharp objects like needles, blades, finger-nails, glass pieces and blunt objects like wood pieces, paper napkins, clothes etc. are used for this purpose. These injuries include chronic conjunctivitis, persistent corneal abrasion, recurrent corneal erosion, corneal laceration, infiltrate and perforation, scleral injury and perforation, dislocation of lens, endophthalmitis and even enucleation of the eyeball (oedipism) [2,3,7].

Our first patient used her finger-nails and the second patient used a paper napkin for their self-inflicted ocular surface injuries. Young and middle-aged males with acute or chronic schizophrenia are mostly affected by self-inflicting eye injuries and commonly occur during visual or auditory hallucinations. Self-inflicted eye injuries can be explained by some psychodynamic theories. Psychiatric theories state physical injury induced by a person to any part of his/her body, as a single or repeated episode, without any suicidal intention, like pulling hair, chewing fingers, biting lips. Some self-inflicted eye injury associated with sexual ideation. Biochemical theories state that an increase in the action of the neurotransmitter serotonin leads to self-

injurious behaviour in Lesch–Nyhan syndrome and abnormal metabolism causes self-mutilation in Gilles de la Tourette syndrome [5]. Drug induced self-inflicted eye injuries associated with lysergic acid diethylamide, abuse of alcohol, cocaine, cannabis and amphetamines [5]. Other psychiatric like obsessive-compulsive disorder, psychotic depression, post-traumatic stress disorder, Munchausen syndrome are associated with self-inflicting eye injuries. Also, some organic states including temporal lobe epilepsy, encephalitis, neurosyphilis are also involved [5]. Common ocular surface mechanical trauma occurred by the fingernails to induce corneal scratch and abrasion, confused with herpetic keratitis, rubbing of the eyes, looks conjunctivitis even corneal erosions. This patient sometimes needs to admit and close follow up before proper diagnosis [5].

### IV. CONCLUSION

Self-inflicted ocular injuries are a very rare condition associated with a wide variety of functional and organic disorders which need a multidisciplinary approach to management. Strong counseling and immediate psychiatrist consultations are essential to prevent lethal consequences in the case of young patients.

➤ Tables: Nil

➤ Figures Legends

- Case One



Fig 1 Conjunctival Lesion of Right Eye



Fig 2 Conjunctival Lesion of Left Eye

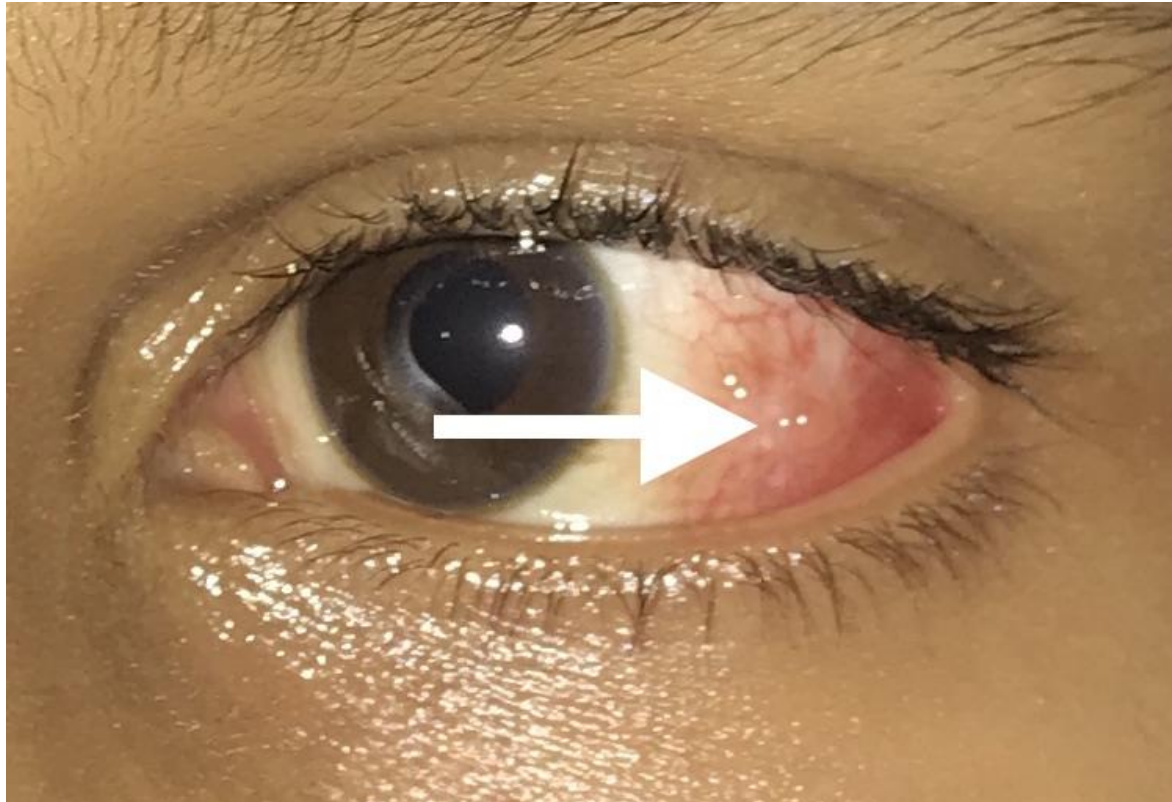


Fig 3 Conjunctival Granuloma of Left Eye



Fig 4 Resolved Conjunctival Lesion in Right Eye

• Case Two

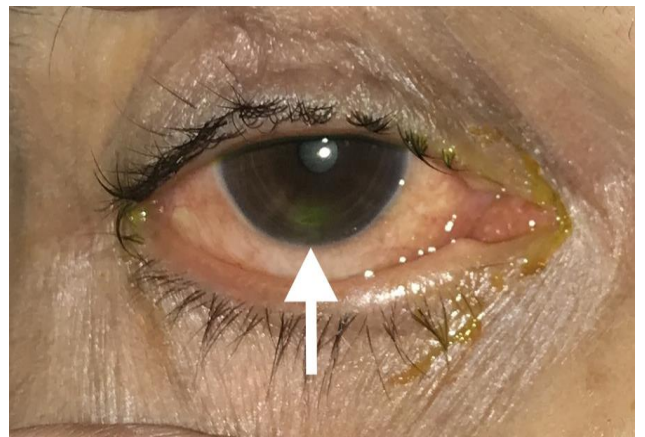


Fig 6 Corneal Lesion in Right Eye



Fig 5 Resolved Conjunctival Lesion in Left Eye

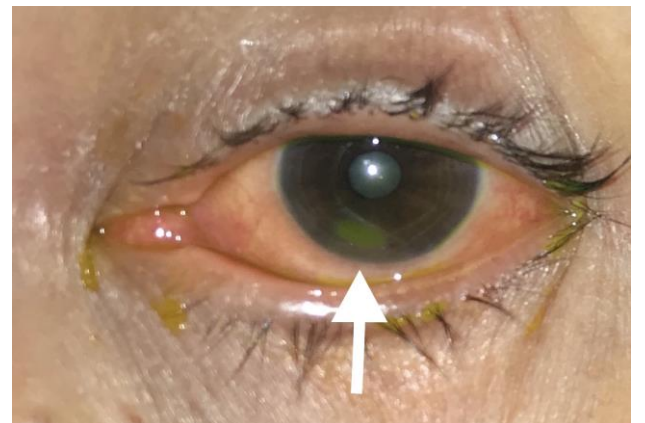


Fig 7 Corneal Lesion in Left Eye

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Fig 8 Realed Corneal Lesion in Right Eye



Fig 9 Healed Corneal Lesion in Left Eye

- *Limitation:* Both of the patient did not need any psychiatric consultation.
- *Conflict of Interest:* No commercial/financial interest.
- *Authors Contribution*
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