

CASE REPORT

SUBCONJUNCTIVAL HAEMORRHAGE FOLLOWING EXTRACTION OF A TOOTH

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ABSTRACT:

Extraction of teeth is the most common minor surgical procedure performed. Extraction of teeth is usually performed by either intra-alveolar or trans-alveolar methods. Subconjunctival haemorrhage after tooth extraction is rare entity. Only very few cases of Subconjunctival haemorrhage after upper molar extraction have been reported in literature. We hereby report a case and discuss the possible etiology and management of this complication.

Key Words: Extraction, Subconjunctival Haemorrhage.

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INTRODUCTION

The etiology of subconjunctival haemorrhage is traumatic and non-traumatic in origin. The most common traumatic condition reported accounting for this is facial trauma involving the fractures of the zygoma. Weisenbaugh noted this symptom in 70% cases in diagnostic evaluation of zygomatic complex fractures.^[1] Other causes of subconjunctival haemorrhage are cosmetic surgery, barotrauma and vigorous coughing. The various non-traumatic causes include systemic hypertension^[2], disseminated intra-vascular coagulation and certain blood diathesis like von Willebrand disease.^[3] We tend to report a rare case of subconjunctival haemorrhage after extraction of left upper canine which has never been reported earlier.

CASE REPORT

A 60 years male patient presented to Eye OPD with complain of acute redness left eye after 3 days of extraction of left upper canine. History revealed extraction of left upper lateral incisor 1 year back and now extraction of left upper canine was done by same quack and put the immediate acrylic prosthetic devices in both the sockets. There was no significant medical history. The procedure was performed under local anaesthesia with no intraoperative complications noted. Next day patient developed acute redness of left eye. There was no history of discharge, foreign body

sensation or any other ocular complaint. General physical examination and systemic examination revealed no abnormality. Required lab investigations done were essentially normal. Visual acuity was 6/6 in both eyes. Intraocular pressure was normal in both eyes. On ocular examination there was redness in left eye nasally, slightly extending superiorly and inferiorly (Fig1).



Figure 1: This image shows left eye subconjunctival haemorrhage nasally slightly extending superiorly and inferiorly.

There was no discharge, follicles or conjunctival congestion in palpebral conjunctiva. On slit lamp examination rest of the anterior segment was normal. Posterior segment evaluation under dilatation revealed no abnormality. Intra oral examination revealed Acrylic prosthetic devices in the socket of left upper lateral incisor and left canine with no local swelling (Fig 2).



Figure 2: Intraoral photograph shows acrylic prosthesis replacing left upper lateral incisor and canine

Patient was managed conservatively and was on weekly follow-up. Subconjunctival haemorrhage resolved completely within 2 weeks.

DISCUSSION

Intra-alveolar and transalveolar are the two methods routinely employed for extraction of teeth. Both these methods can have intra-operative as well as postoperative complications if the surgical principles are not strictly followed. These complications vary from simple periodontal injury to fracture of jaw in the mandible and fracture of tuberosity and oroantral communication in the maxilla. Thirumurugan K et al has reported a case of maxillary tuberosity fracture and subconjunctival haemorrhage after extraction of maxillary third molar.^[4] The etiologic factors responsible for the fracture of maxillary tuberosity during extraction of upper molars are large maxillary sinus with thin walls, a tooth with large divergent roots or an abnormal number of roots, and some dental anomalies. A chronic apical infection of the affected tooth may render the bone of the tuberosity more liable due to bone sclerosis.^[5-7] In 2010 Raichoor and Kishore have reported another case of subconjunctival haemorrhage after extraction of maxillary molar tooth.^[8] The etiology of subconjunctival haemorrhage is traumatic and non-traumatic in origin. The traumatic causes include facial trauma involving the fractures of the zygoma, cosmetic surgery, brow lift surgery, barotrauma and vigorous coughing.^[1] The various non-traumatic causes are systemic hypertension^[2], disseminated intra-vascular coagulation and certain blood diathesis like von Willebrand disease.^[3] In our case there was only subconjunctival ecchymosis in the left eye without any other associated major symptoms. Exact cause for the occurrence of subconjunctival haemorrhage after the extraction of canine remains unclear. One cause could be due to local anaesthesia used in surgery. In 2006 Uckan et al. pointed out that intra-arterial injections can occur during regional nerve blocks even when clinicians use the

utmost care by aspirating before the injection and noting anatomical land marks. They also highlighted that individual anatomic variation of the neurovascular structures may allow the untoward spread of anaesthetic solution to an ectopic site causing unusual and peculiar ocular symptoms.^[9] Another possible cause could be the same mechanism as in case of rhinoplasty. Because canine has the longest roots and lies in close proximity with the lateral wall of nose. Kara CO et al has reported subconjunctival ecchymosis in 19.1% cases after rhinoplasty.^[10] This haemorrhage in rhinoplasty is not due to direct trauma to orbit or conjunctiva but due to migratory ecchymosis. Because in our case also immediate prosthesis was given following tooth extraction, one more cause that seems possible could be barotrauma. Subconjunctival haemorrhage has been well reported in case of vigorous coughing and sneezing.^[11] Though subconjunctival haemorrhage is not avoidable in all patients, it could be prevented by use of utmost care while giving the anesthetic block injection (aspirating before injection and noting anatomical landmarks) and atraumatic surgical technique.

CONCLUSION

A rare case of subconjunctival hemorrhage after extraction of upper canine is presented here, the possible consequences of which should be discussed with the patient prior to the surgery. We have tried to discuss the possible etiology, management, and preventive aspects for this rare complication.

REFERENCES:

1. Wiesenbaugh JM. Diagnostic evaluation of zygomatic complex fractures. *J Oral Surg* 1970;28:204–8.
2. Fukuyama J, Hayasuka S, Yamada K, Setogawa T. Causes of subconjunctival haemorrhage. *Ophthalmologica* 1990;200:63–7.
3. Baur RD, Sek J. Health stats and health related quality of life associated with Von willebrand disease. *Am J Hematol* 2003;73:108–14.
4. Thirumurugan K, Munzanoor RR, Prasad GA, Sankar K. Maxillary tuberosity fracture & subconjunctival hemorrhage following extraction of maxillary third molar. *J Nat Sci Biol Med.* 2013;4:242–5.
5. Cohen L. Fractures of the maxillary tuberosity occurring during tooth extraction. *Oral Surg Oral Med Oral Pathol.* 1960;13:409–11.
6. Norman JE, Cannon PD. Fracture of the maxillary tuberosity. *Oral Surg Oral Med Oral Pathol.* 1967;24:459–67.
7. Shah N, Bridgman JB. An extraction complicated by lateral and medial pterygoid tethering of a fractured maxillary tuberosity. *Br Dent J.* 2005;198:543–4.
8. Kumar RA, Moturi K. Subconjunctival ecchymosis after extraction of maxillary molar teeth. *Dental Traumatology* 2010; 26: 298–300.
9. Uckan S, Cilasun U, Erkman O. Rare ocular and cutaneous complication of inferior alveolar nerve block. *J Oral Maxillofac Surg* 2006;64:719–21.
10. Kara CO, Kara IG, Yaylali V. Subconjunctival ecchymosis due to rhinoplasty. *Rhinology.* 2001;39(3):166–168.
11. Duke-Elder S. *System of Ophthalmology Diseases of the Outer Eye.* VIII. London: Henry Kimpton; 1965. Conjunctival diseases; p. 34–9.

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