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Management of Isolated Zygomatic Arch Fractures; Keens Buccal Sulcus Approach. A Case Report

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Abstract: *The incidence of isolated Zygomatic arch fractures in a maxillofacial trauma is most common or second after nasal fractures. Various authors have presented different methods for its effective management.. We present a case report based on KEENS BUCCAL SULCUS APPROACH using rowes Zygoma elevator which we found to be less time consuming, with no scar formation, no major intervention of vasculature and economical .*

Keywords: *Zygomatic arch fracture, Rowes zygoma elevator*

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I. Introduction

Since the first description of a surgical reduction of azygoma fracture by Duverney in 1751, many varyingmethods of treatment have been described. Both intraoraland extraoral methods have become commonplace[6].The transoral approach was popularized by Keenin 1909, with later modifications by Goldthwaite andQuinn. These techniques offer the advantages of avoidingany skin incision, thereby avoiding any visible scaring.Additionally, they allow for minimal dissection andan excellent vector for reduction; however, they mayresult in increased rates of infection by introducing oralflora into the infratemporal fossa.Gilles et al describedthe temporal fossa approach in 1927, and this became avery popular method for the treatment of isolated archfractures around the world. Similarly, Dingman andNatvig6 described the supraorbitalapproach as an extraoralalternative in 1964[4]. While many of these Isolated fractures are of minimal clinicalsignificance, those that possess esthetic deformities or functional limitations demand surgical reduction.Here we describe asimple and effective method for the reduction of theisolated arch fracture[8] .

II. Case Report

A 24 year old female patient reported to the department oforal and maxillofacial surgery with a chief complaint ofinability to open the mouth wide. The patient gave a historyof sports injury. On examination, a depression was foundon the left preauricular region (Fig. 1). Palpation over thesame area revealed step deformity and tenderness. Patienthad restricted mouth opening and his inter incisal distancewas found to be 21 mm. Thepatient was subjected toroutine investigations and radiographs like PNS view andsubmentovertex view,Computerised tomography (Fig. 2). A diagnosis of left isolatedzygomatic arch fracture was made based on the clinicalexamination and radiographs.The case was posted for surgery under general anaesthesia.Intra oralincision was placed bucally 2 cm to 3 cm in length ,dissection was made till the fracture site.Reduction of the zygomatic arch fracture was doneby keens buccal sulcus approach using Rowe's zygomaticelevator.

III. Discussion

The keens buccal sulcus approach method is a quick, simple, andeffective technique for thereduction of a depressed isolatedzygomatic arch fracture[11]. It is minimally invasive, carrieslittle risk of infection or neurovascular injury, andleaves no visible scarring. This technique may beperformed under local anesthesia or sedation in anemergency department or clinic setting, making it ahighly cost-effective addition to the oral and maxillofacialsurgeon's armamentarium.

IV. Conclusion

The technique of stabilization of reduced zygomatic arch using keens buccal sulcus approach using rowes Zygomatic elevator is a relatively easy technique to follow with minimal or no complications.

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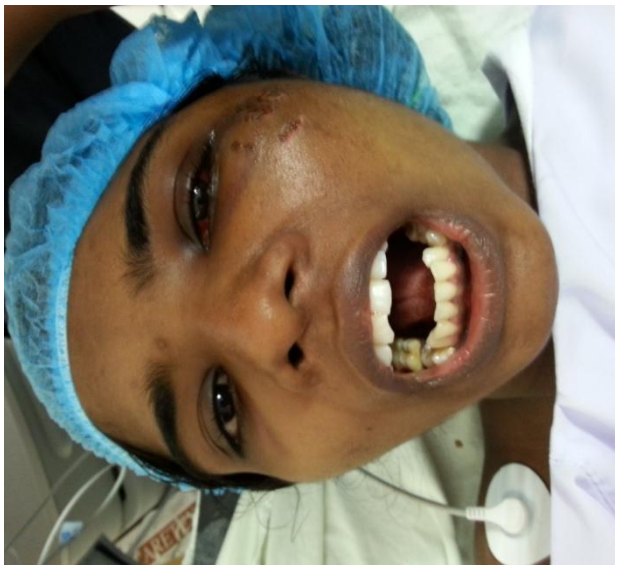
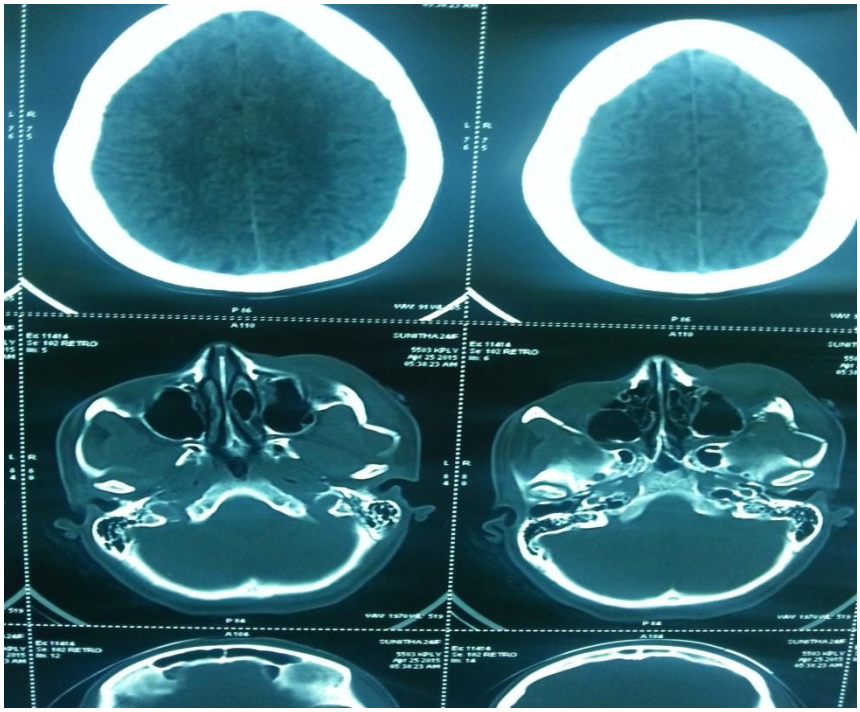
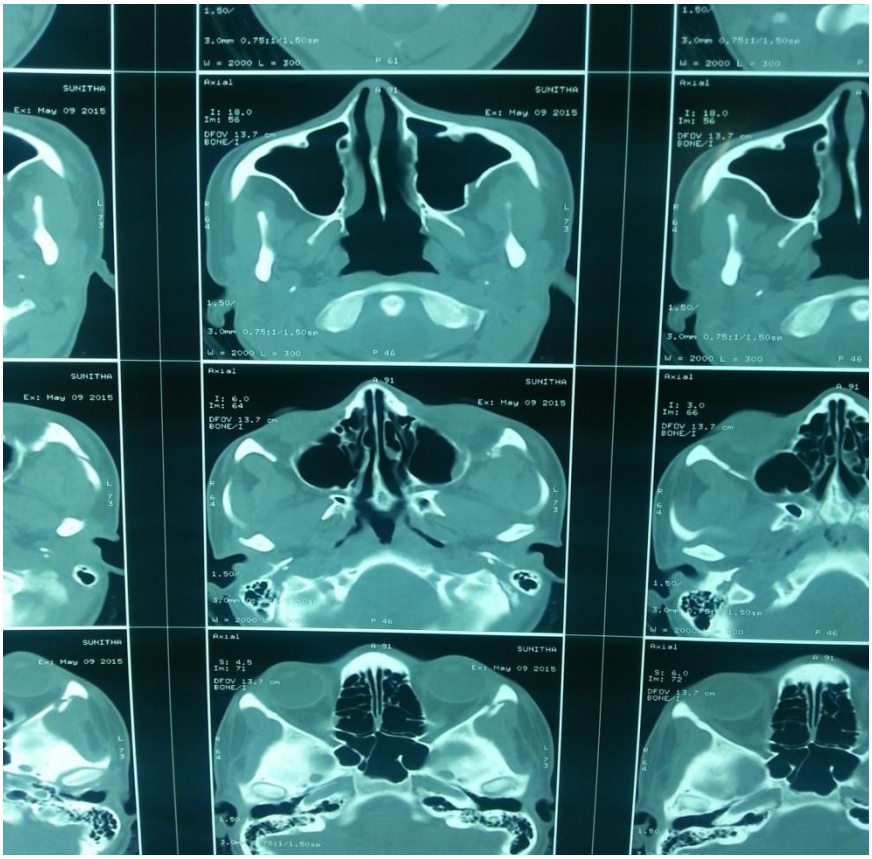


Pre operative picture : Mouth opening 22 mm

Post operative picture: Mouth opening 38 mm



Isolated left fracture of Zygomatic arch ;PRE OP



Post operative

*Dr Balaji R Shenoi. "Management of Isolated Zygomatic Arch Fractures; Keens Buccal Sulcus Approach. A Case Report." IOSR Journal of Dental and Medical Sciences (IOSR-JDMS) 16.12 (2017): 71-73