SEVERE MAXILLO-FACIAL INJURIES IN A NIGERIAN: THE NEED FOR A SAFE ROAD

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ABSTRACT

A case of a 30 year old motor mechanic with severe multiple maxillofacial injuries following a road traffic accident sequel to an armed robbery attack is presented. He had right Leforte II and mandibular fractures with soft tissue injuries and had emergency tracheostomy with repairs of soft tissue injuries and fixation of the fractures. He developed oronasal fistula and epiphora from nasolacrimal duct obstructions both of which resolved spontaneously and he made complete recovery.

This case further re-emphasizes the need for the enforcement of legislations to reduce these injuries with the provision of emergency medical services on our highways and entrenchment of the National health insurance scheme (NHIS) into the health care system of Nigeria.

Key words: *Severe, Maxillo-facial injuries, Armed robbery.*

INTRODUCTION

In automobile crashes, the maxillofacial area is the most frequently injured body region and there are considerable differences in the reported worldwide pattern of maxillofacial fractures'. In the more developed countries of Europe, violence followed by road crashes are the predominant causes while in the developing world, the causative factors are reversed with most being the result of road crashes and it is the major cause of maxillofacial injuries in Nigeria[2].

Incidence of maxillofacial injuries has been on the increase in Nigeria due to a sudden increase in the number of vehicles on our roads, poor maintenance of highways coupled with the lack of usage of seat belts, drink-driving and poor emergency medical services on our highways.

The mandible was twice likely to be fractured compared to zygomatico-maxillary complex in road crushes[3]. Road traffic accidents (RTA) due to armed robbery attacks is another dimension on Nigerian roads, a study done by Olasoji et al in Maiduguri, North Eastern Nigeria reported assault as the most frequent cause of maxillofacial injuries'.

This case highlights a zygomatico-maxillary and mandibular bone fractures due to road crash resulting from an armed robbery attack in a Nigerian male. The need for safety on our roads is highlighted with provision of emergency medical services and the entrenchment of National Health Insurance Scheme (NHIS) which will ensure the treatment of accident victims promptly without the need for deposit payments.

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CASE SUMMARY

A 30 year old male motor mechanic was admitted via the accident and emergency unit. He was a front seat passenger of a commercial pick-up Van traveling along Ilorin-Idofian road, Kwara state North central Nigeria, when a big bar of metal was thrown through the wind screen by armed robbers which hit him on the face and he fell off the moving vehicle. There was bleeding from the face with avulsion of the nose and upper-lip arid loss of teeth with inability to open his mouth and associated transection of the tongue, no injury to the neck.

The oral cavity/oropharynx revealed severe trismus with detachment of upper-lip, complete transection of the tongue between anterior and middle thirds with fractures of the body of the mandible bilaterally. The nose showed complete avulsion of the nose from the naso-ethmoidal suture with exposure ofthe postnasal space. The face showed fracture of the body of the mandible bilaterally with a right Leforte II fractures with complete avulsion of the external nasal pyramid.

A diagnosis of mid-facial injuries was made with-

1 Complete avulsion of external nasal pyramid.

2 Right Leforte II and left molar fractures.

3 Mandibular fractures bilateral (body).

4 Complete transection of the tongue.

Plain radiographs of paranasal sinuses and mandibles showed Leforte II fractures and bilateral fractures of the body of the mandibles. He was resuscitated and worked up for EUA with wound exploration and repair. Findings at surgery showed avulsion of central middle third of the face with the exposure of the oropharynx, floor of the orbit, lower alveolus and complete transection of the tongue at the junction of the anterior one third and posterior two thirds of the tongue as shown in Figures 1 & 2. He had emergency tracheostomy under LA and had reduction and circum zygomatic wiring of Leforte II and direct islet wiring of mandibular fractures and soft tissue repair-figure as shown in Figure 3.

Patient did well and was commenced on NGT feeding (Figure 4) and later straw-feeding on the 10th day postoperatively. This was difficult initially because of the oro-nasal fistula which he developed which subsequently healed.

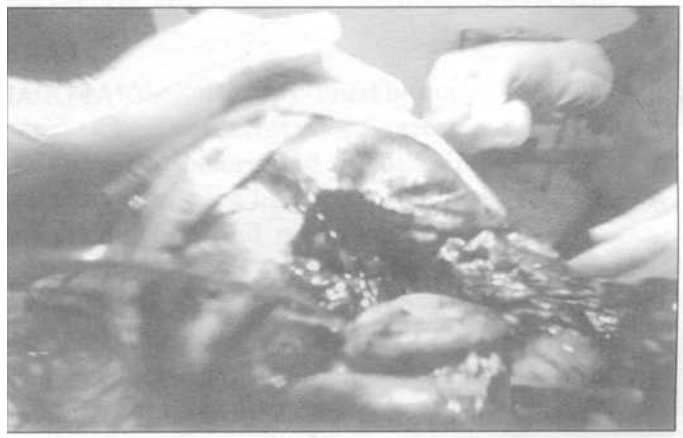

Fig. 1. At presentation

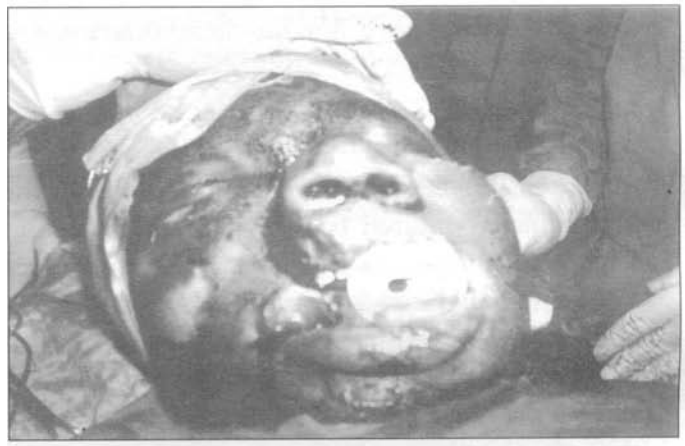

Fig. 2. Intraoperatively

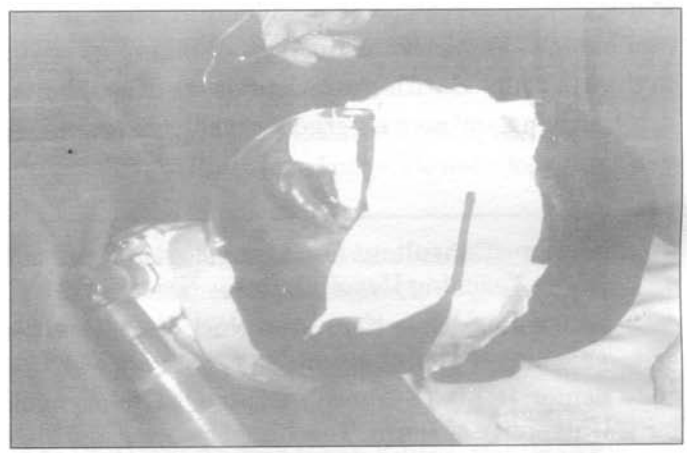

Fig. 3. Immediate postoperatively

He was subsequently changed to cup and spoon feeding, and he was taking orally subsequently and was decannulated 10th day post-operatively. He developed bilateral epiphora secondary to lacrimal duct obstructions and he had lacrimal syringing done and the epiphora disappeared. He was discharged home six weeks after admission and the outpatient visits has been uneventful and he has since returned back to work (Figure 5).

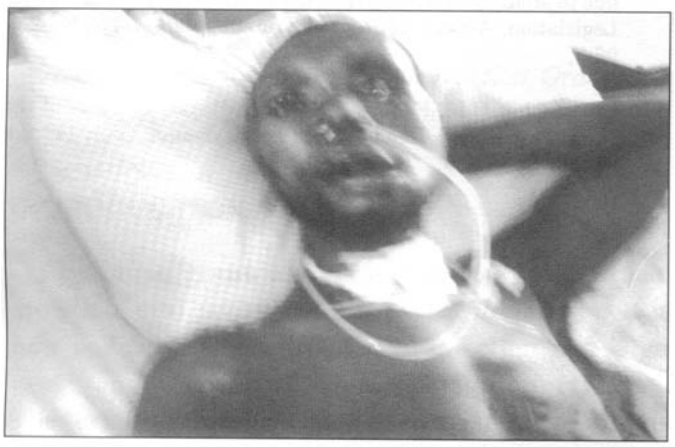

Fig. 4. 15th day postoperatively.

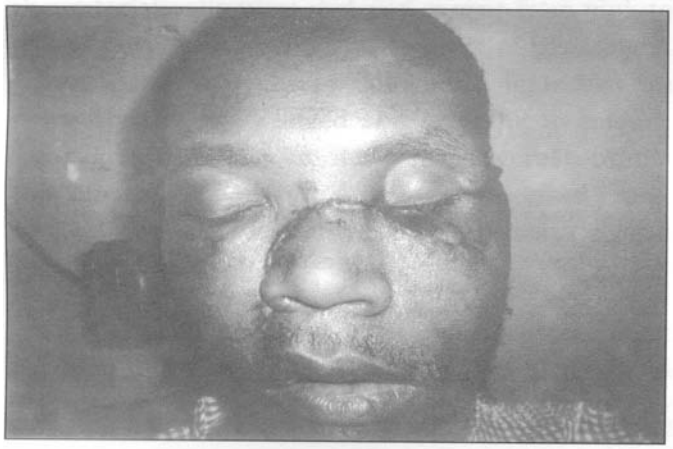

Fig. 5. 6-8 weeks postoperatively at discharge

DISCUSSION

Maxillofacial injuries constitute a substantial proportion of cases of trauma seen worldwide and most are due to road crashes[5]. There is considerable morbidity and mortality from maxillo - facial trauma in Nigeria due to lack of total enforcement of legislation on the use of seat belts, drunken driving, inadequate and not fully operational emergency medical services on our highways[6].

The case presented is a male patient in his third decade of life which is constituent with previous series[2,7,8]. Except for the North Eastern Nigeria', the commonest cause of injuries in Nigeria was road crashes[9-10]. In this patient, the road crash was due to assaults from armed robbers which is a new dimension on Nigerian roads of late.

The jaw fracture in our patient affected both the zygomatico-maxillary complex and the mandible even though the mandible is said to be twice more affected as more of the patients with middle third fractures tend to die before they get to the hospital[2,6].

The airway is compromised in this patient due to Leforte fractures and the concomitant massive swellings of the tongue and the oropharynx. He had emergency tracheostomy rather than endotracheal intubations which was hampered by poor visualization, possibility of damage to the cervical spine and the central nervous system. The Le-forte fractures were repaired via circum zygomatic wiring and islet wiring of mandibular fractures and oronasal fistula and epiphora both resolved conservatively.

This case highlights the unsafe nature of our roads due to armed bandits, poorly maintained road networks with inadequate emergency medical services. Road traffic accidents due to assaults from armed robbery attacks is on the increase and so programmes such as security patrol on our roads to minimize assaults, enforcement of legislations on the use of seat belts, provisions of emerging medical care services on our roads, speed limits, drink driving laws, all aimed at prevention and treatment of maxillofacial injuries should be instituted to stem this tide.

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REFERENCES

1 Hueike DF, Compton CP. Facial Injuries in automobile crashes Oral Maxillofac Surg, 1983; 41:241-4.

2 Oji C. Jaw fractures in Enugu, Nigeria, Br J Oral Maxillofac Surg. 1999 Apr; 37(2): 106-9.

3 Iida S, Kogo M, Sugiura T, Mima T, Matsuya T, Int J Oral Maxillofac. Surg. 2001 Aug; 30(4): 286-90

4 Olasoji HO, Tahir A, Arotiba GT, Changing picture of facial fractures in Northern Nigeria. Br J Oral Maxillofac Surg, 2002; 40:140-3.

5 Al Ahmed H E, Jaber M A, Abu Fanas S H, Karas M. The pattern of Maxillofacial fractures in Sharjah. United Arab Emirates: a review of 230 cases. Oral Surg Oral Med Oral Pathol Oral Radiol Endo. 2004 Aug; 98(2): 166-70.

6 Adebayp E T, Ajike OS, Adekeye E 0. Analysis of the pattern of Maxillofacial fractures in Kaduna, Nigeria. Br J Oral Maxillofac Surg 2003 Dec; 41(6): 396-400.

7 Adeyemo WL, Ladeinde AL, Ogunlewe MO, James 0. Trends and characteristics of Oral Maxillofacial injuries in Nigeria: are review of the literature; Head Face Med. 2005 Oct 4; 1:7, 12-15.

8 Obuekwe 0, Owotade F, Osaiyuwu 0. Etiology and pattern of zygomatic Complex fractures: a retrospective study, J Nat Med Assoc, 2005 Jul; 97(7):992-6.

9 Fasola A 0, Nyako E A, Obiechina A E, Arotiba J T. Trends in the characteristics of maxillofacial fractures in Nigeria, J Oral Maxillofac Surg. 2003 Oct; 61(10): 1140-3.

10 Adeyemo W L. The Rising Incidence of Maxillofacial injuries due to Motorcycle (Okada) crashes in Nigeria: A need for strict Legislation; African Journal of Trauma, 2004 Vol 2, No 2-4; 96-7,

11 Christopher H M, Paul J D. Facial fractures, Diseases of the Nose, Throat, Ear. Head & Neck Pennsylvania, USA, 14th Ed; John J B; 287-93.