

Prospective Case Study on Orofaciomaxillary Injuries in Eclampsia Patients

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Abstract

A prospective study was conducted to determine the incidence and pattern of orofacial injuries among eclamptic patients at Ummaid Hospital, Dr. SNMC Medical College, Jodhpur between may 2016 to October 2016. The incidence of orofacial injuries was 56.94%. Most injuries were due to bites during convulsive episodes. The type of antenatal care received had an influence on the incidence of orofacial injuries and there was a correlation between the number of convulsions and orofacial injuries. Obstetricians and other healthcare providers should be familiar with the ways of preventing these injuries and seek early maxillofacial consultation when they occur.

Keywords: Orofacial Injuries; Eclampsia.

Introduction

Eclampsia is a serious complication of pregnancy which refers to seizure activity or coma unrelated to other cerebral conditions and can cause significant mortality and morbidity in pregnant woman [1]. Most cases present in the third trimester of pregnancy or within the first 48 hours following delivery. The incidence of eclampsia varies from one part of the world to the other and is increased in women of low socio-economic status,

extremes of age and primigravid state. Pre-eclampsia/eclampsia affects women within the reproductive age group. Both pre-eclampsia and eclampsia account for significant maternal and fetal morbidity and mortality. They account for approximately 50,000 maternal deaths worldwide annually however, in the developed countries the maternal mortality rate from eclampsia has been reduced with early diagnosis and aggressive management, and is currently less than 1%. This has been attributed, amongst other factors, to lack of antenatal and intrapartum care for the teeming obstetric population.

Eclampsia often leads to multiorgan failure if not timely intervened [2]. Maternal complications of eclampsia may include permanent central nervous system damage from recurrent seizures or intracranial bleeds, renal insufficiency and death. In addition, seizure induced complications include tongue biting, head trauma, fracture dislocations or aspiration.

A review of literature shows that there are sparse reports on the incidence and pattern of maxillofacial injuries in eclamptic women following seizure episodes. Oro-facial injuries during eclampsia, having an incidence as high as 42%, can be a serious cause of concern and are an additional factor that can result in mortality [3, 4]. The present study aims at documenting the prevalence and pattern amongst western Rajasthan population attending a tertiary health care facility.

Aims and Objectives

Prevalence of orofaciomaxillary injuries among eclamptic patients admitted in UMMAID Hospital.

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Received on 08.06.2017,
Accepted on 28.06.2017

Material and Methods

144 patients who presented with eclampsia at the Department of Obstetrics and Gynecology, Ummaid Hospital, Jodhpur from April 2016 to September 2016 were prospectively studied.

In this study, eclampsia was defined as the occurrence of convulsions during pregnancy or within the first ten days postpartum, in conjunction with at least two of the following features recorded within 24 hours of the convulsion: hypertension (a diastolic blood pressure of at least 90mmHg), proteinuria (at least 2+ protein in random urine sample or -1.0gm of protein in 24 hours collection) or thrombocytopenia (platelets count of less than 100×10^9 /litre). Information retrieved included patients' demographic characteristics, antenatal history, parity, location and type of facial injury, mechanism of injury, associated injuries, treatment given,

complications and outcome. The data were expressed as means and percentages.

Results

144 cases of eclampsia were diagnosed within the study period. Of these, 82 patients (56.94%), whose ages ranged from 18 - 35 years, sustained orofacial injuries during the course of their eclamptic fits. 78 of them were primigravida. Table 1 shows the type of injuries sustained and their location. In general, the injuries were mainly limited to the orofacial soft tissues with lacerations and bruises accounting for injuries in eclamptic patients. The tongue recorded the highest number of lacerations (12 cases), while most of the bruises were seen on the lips and gingivae. The lacerations on the tongue were mainly due to tongue biting.

Table 1: Distribution of Convulsions in Antepartum and Postpartum

Antepartum Eclampsia	116
Postpartum Eclampsia	28

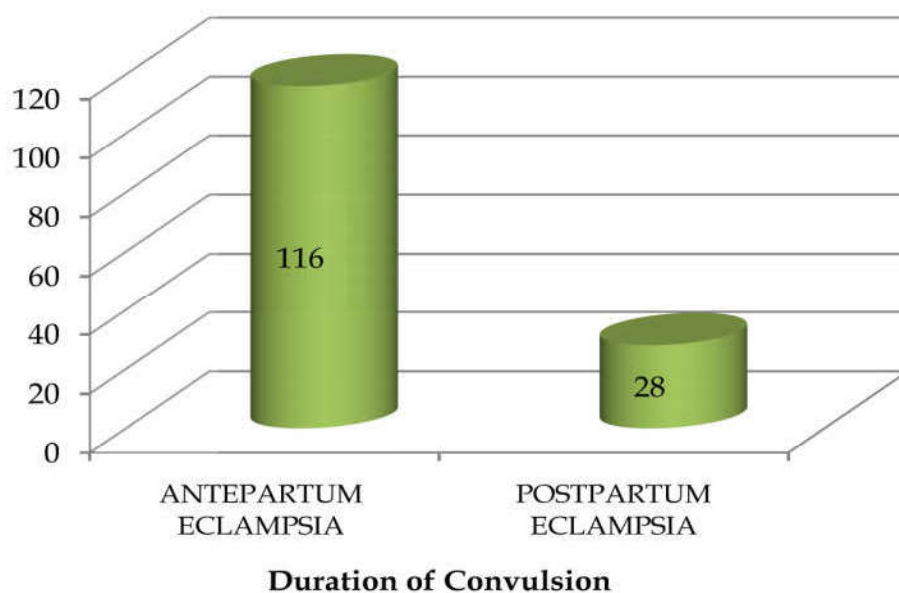


Fig. 1:

Table 2: Distribution of Type of Orofaciomaxillary Injury

Type of Injury	N
Bruise	64
Laceration	18
Joint Dislocation	0

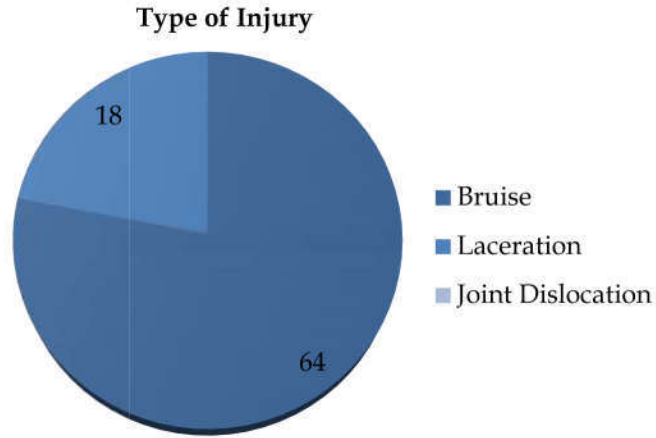


Fig. 2:

Table 3: Distribution of Location of Orofaciomaxillary Injury

Tongue	34
Lips	22
Gingiva	5
Tongue And Lips	48
Tm Joint	0

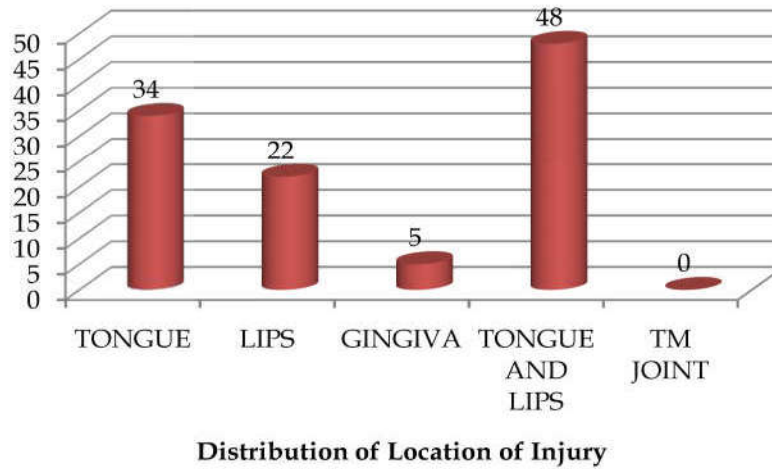


Fig. 3:

Table 4: Distribution Type of Delivery

Type of Delivery	N
Caeserian	40
Vaginal	104

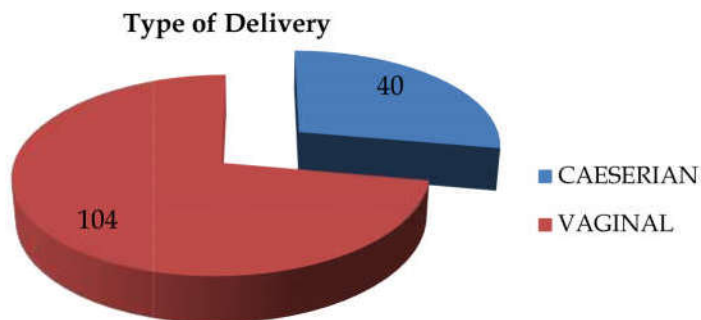
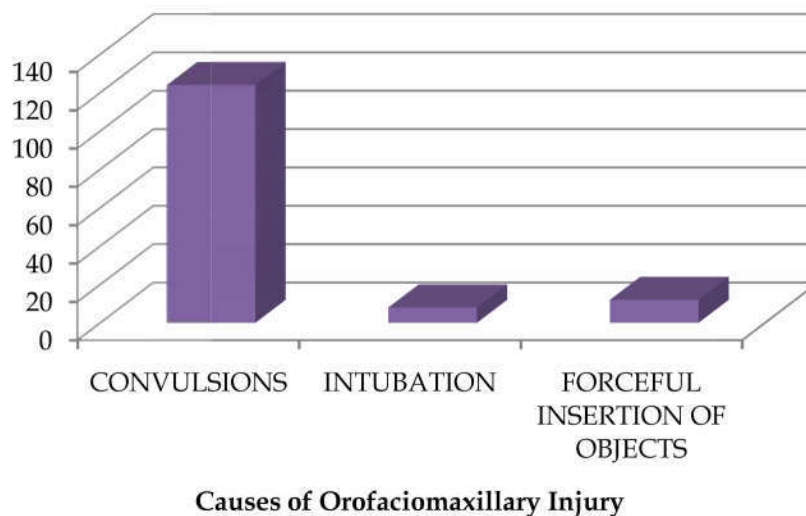


Fig. 4:

Table 5: Distribution of Causes of Orofaciomaxillary Injury

Convulsions	124
Intubation	8
Forceful Insertion of Objects	12

**Fig. 5:**

Discussion

Eclampsia continues to be a prominent cause of maternal and perinatal morbidity and mortality particularly in the developing countries of the world. The most frequent of these morbid complications are acute renal failure, hyperpyrexia and aspiration pneumonia.

Others include wound sepsis, post-caesarean section and urinary tract infections. Some authors have even documented fracture dislocations of the manubriosternal, temporomandibular and hip joints respectively. The present study recorded the prevalence of orofacial injuries (56.94%), ranging from lip biting, bruises to tongue lacerations amongst these group of patients.

Orofacial injuries arising from seizure related disorders are well-recognized. They range from soft tissue bruises of perioral and intraoral structures especially the lips, gingivae and tongue to facial bone fractures [6].

The soft tissues, especially the tongue and lips, could be traumatized from biting as a result of the vigorous jaw movement that usually accompanies fitting episodes or from direct trauma from the teeth in the event of these tissues being trapped between the jaws when the patient falls down. Fractures of the facial skeleton arise from direct effect of falls following sudden loss of consciousness. Most injuries are due to bite and forceful insertion of hard objects into the

patient's mouth by relatives during convulsive episodes [5].

An obstetrician should be aware of the possibility of the presence of these injuries in an unconscious eclamptic patient and their life-threatening consequences if not promptly diagnosed and managed. And Consultation from oromaxillary surgeon should always be done [6].

Although the patients were both primi and multigravids, it is instructive that majority (90.8%) of them were unbooked for antenatal care prior to presentation in hospital. Perhaps these cases may not have progressed to eclampsia if the patients had attended antenatal clinics. Hence, the nonattendance of antenatal checks may partly account for the high prevalence of orofacial injuries amongst the study population.

References

1. Duley L. Maternal mortality associated with hypertensive disorders of pregnancy in Africa, Asia, Latin America and the Caribbean. *Br J Obstet Gynaecol* 1992;99:547-553.
2. Castro LC. Hypertensive disorders of pregnancy. In: Hacker N and Moore JG (eds.). *Essentials of Obstetrics and Gynecology*. (3rd edn), Philadelphia. 1998.
3. Adeyemo WL, Rabiun KA, Okoturo TM, Adebajo AA, Adewunmi AA, et al. Orofacial injuries associated

- with eclampsia in patients presenting at a Nigerian Tertiary Hospital. *J Obstet Gynaecol* 2012;32:54-57.
4. Ndukwe KC, Ugboko VI, Ogunlola IO, Orji EO, Makinde ON. Orofacial injuries in eclamptic Nigerians. *Afr J Reprod Health* 2004;8:147-151.
 5. Adeyemo WL, Rabiou KA, Okoturo TM, Adebajo AA, Adewunmi AA, et al. Orofacial injuries associated with eclampsia in patients presenting at a Nigerian Tertiary Hospital. *J Obstet Gynaecol* 2012;32:54-57.
 6. Desai R, Jodha BS, Sharma P. A Case of Severe Tongue Bite in Eclampsia. *Gynecol Obstet (Sunnyvale)* 2015;5:340. doi:10.4172/2161-0932.1000340.
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