



Functional Changes and Therapeutic Approach Intra-Hospital in Post-Surgery Oral and Maxillofacial

Marina Araújo Sobral¹, Lídia Audrey Rocha Valadas², Edilson Martins Rodrigues Neto^{3,4*}, Cândida Carolinne Santos Alves Melo², João Hildo de Carvalho Furtado Júnior⁵ and Mariana Lima Fernandes³

¹Physiotherapy College, Christus University (Unichristus) – Fortaleza – CE – Brazil

²Department of Pharmacy, School of Pharmacy, Dentistry and Nursing, Federal University of Ceará, Fortaleza-CE-Brazil

³Department of Physiology and Pharmacology, School of Medicine, Federal University of Ceará, Fortaleza-CE-Brazil

⁴Catholic university center of Quixadá (Unicatólica), Quixadá-CE-Brazil

⁵Department of Clinical Dentistry, School of Pharmacy, Dentistry and Nursing, Federal University of Ceará, Fortaleza-CE-Brazil

ABSTRACT

Oral-maxillo-facial specialty aims at diagnosing and treating diseases, trauma, injury and congenital and acquired anomalies, of the masticatory apparatus, its annexes and associated structures. Multidisciplinary follow-up in postoperatively is necessary to prevent infections, aesthetic deformities and functional changes resulting from surgery and etiology for which it was nominated. Reporting the functional changes and intra-hospital therapeutic approach in the postoperative period of an oral-maxillo-facial service. We conducted a field survey, documentary, cross-sectional and quantitative with patients in post-operative oral-maxillo-facial surgery who were in the infirmary units in the General Hospital of Fortaleza (HGF). Data were collected from medical records of patients through a statement made by its own researchers. Data were statistically analyzed by the software Statistical Package for The Social Science (SPSS), version 20. We analyzed 26 medical records. Most patients were male, 14 (53,8%). The most prevalent age group was between 35 to 49 years old with 11 (42,3%) from the patients. The most frequent causes of oral-maxillo-facial disorders were the physical aggressions and falls, with eight (30,8%) patients each. The jaw was the most affected place, with nine (34,6%) cases. From the most affected movement limitations we find the mouth opening 9 (34,6%), as the most restricted movement. There was a predominance of male patients, aged between 35 and 49, affected by physical assaults and falls that led to the trauma. The presence of limitations was significant, making it clear the need for physiotherapy monitoring.

Keywords: Ambulatory Care, Face, Trauma centers

INTRODUCTION

The face structure is constituted by fine structures, comprising a thin skin, muscles, tendons and ligaments, and extensive innervation and vascularization. Its composition is needed specialized attention from health professionals in order to diagnose and treat pathologies inherent to its particular through conservative procedures or not, as the maxillo-facial surgery [1-3].

The specialty of surgery and oral and maxillofacial Traumatology objective diagnosis and treatment of pathologies, trauma, injury and congenital anomalies and acquired the masticatory apparatus, its annexes and associated structures [4].

Patients undergoing surgical procedures require multidisciplinary approach, comprehensive and specialized, since the surgery exposes there are several factors that can worsen the patient's condition.

These factors, infections can lead cosmetic deformities and/or functional arising from surgery or factors associated with the etiology of aggression [5,6].

The great influence that the face imposes on the quality of life of individuals and society; it is necessary an early and correct approach, in order to reduce the chances of limitations [7].

The multidisciplinary patient follow-up should aim to functional improvement of patients. Thus, during the postoperative phase of the adopted measures should be proposed according to the type and the cause of surgery and clinical presentation of the patient, to prevent possible morbidities [2]. Thus, the therapeutic approach must be held by a multidisciplinary team trained and qualified to meet in maxillo-facial, the existence of complexity and individuality reported by patients [8].

By the presence of deformities and limitations concomitant monitoring by professional physical therapy to patients in the postoperative maxillo-facial must be designed to reduce nociceptive processes, swelling and movement restrictions through conducting exercises that help the patient running his mouth moving as soon as possible [9].

The physiotherapy should be carried out with muscle relaxation techniques, inhibition of tender points and kinesiotherapeutic in order to restore the damaged or lost functions [10].

According to the data presented and the scarcity in the literature of scientific publications related to this topic, the aim of this research was to evaluate the functional changes, the etiology of surgery and in-hospital therapeutic approach in postoperative oral and maxillofacial-facial.

METHODOLOGY

We conducted a field research, documental, retrospective and quantitative, with 26 patients in the postoperative period in the service of oral and maxillo-facial surgery at the General Hospital of Fortaleza (HGF). This research was approved by the Research Ethics Committee under protocol n° 121113.

Relevant information to patients was collected through information contained in the medical records through a form of data collection prepared by the researchers themselves. Patients with oral and maxillo-facial trauma, of both genders, and age over 18 were admitted to the oral and maxillofacial service HGF during the survey period. They excluded patients with trauma that was not maxillo-facial and people under 18.

Statistical analysis of the collected data was performed using the software Statistical Package for The Social Science (SPSS) version 20.

RESULTS

Regarding gender, male sex was the most prevalent with 14 (53.8%) patients. As for age, the most frequent age was between 35 to 49 years old, 11 (42.3%) patients; from 18-25, eight (30.8%) patients, 26 to 34, five (19.2%), and only two (7.7%) over the age of 50 years old.

Regarding the etiology, motorcycle accidents and falls were the most prevalent with eight (30.8%) cases each, followed by physical aggressions, six (23.1%) patients.

Table 1: Profile of the patients' oral and maxillo-facial trauma post-op; Fortaleza, 2015

Gender	FA	F%
Male	14	53.8
Female	12	46.2
Age (years)		
18 -25	8	30.8
26 – 34	5	9.2
35 – 49	11	42.3
>50	2	7.7
Etiology		
Motorcycle accidents	8	30.8
Falls	8	30.8
Physical aggression	6	23.1
Car accident	2	7.7
Other	2	7.7

Regarding the place of greater involvement of the face, the jaw was the most affected with nine (34.6%) cases, followed by the zygomatic complex, six (23.1%), and jaw, four (15.4%). However, 18 (69.2%) patients showed no dental trauma.

All patients underwent the surgical procedure in order to restore the facial structures. However, patients who underwent surgery had the surgery holding of local jaw, 10 (38.5%) cases, followed by the zygomatic complex, seven (26.9%) patients.

Table 2: Stricken regions and dental condition of patients victims of oral and maxillofacial trauma; Fortaleza, 2015.

Surgical Needs	FA	F%
Yes	26	100
No	0	0
Region Affected		
Jaw	10	34.6
Zygomatic complex	7	23.1
Jaw	4	15.4
Nose	1	3.8
Maxilla and mandible	1	3.8
Nose and mandible	1	3.8
Mandible and zygomatic	1	3.8
Nose, mandible and zygomatic	1	3.8
Dental Absence		
Yes	18	69.2
No	8	30.7

About the changes in mandibular movements was found that nine (34.6%) exhibited difficulty in opening mouth-five (19.2%) had limitations on the movement of lateralization of the jaw. The vast majority of patients, 22 (84.6%) had post-surgical swelling, of which four (15,4%) were detected in the regions of the mandibular, maxillary and zygomatic complex. Regarding the painful condition, 13 (50%) had pain.

With regard to sensitivity change, it was found that 22 (76,9%) patients showed some change five (19,2%) showed no sensitivity of the face and intra-oral region. Of patients had some type of change, nine (34.6%) had as main place of abuse intra-oral region.

With regard to the onset of bleeding, this was evident in six (26.9%) patients, since the lack of salivation was evident in 19 (71.3%) cases. The communication changes and feeding difficulties occurred in 10 (38.5%) and 26 (100.0%) patients, respectively.

Table 3: Main limitations and complications presented by patients of oral and maxillofacial trauma post-op; Fortaleza, 2015

Limitations	FA	F%
Oral opening	9	34.6
Laterality	5	19.2
Oral opening, closing and laterality	4	15.4
Oral opening and laterality	1	3.8
Oral opening and closing	1	3.8
None	7	11.5
COMPLICATIONS		
Presence of Edema		
Yes	22	84.60%
No	4	15.40%
Sensitivity changes		
Yes	22	84.60%
No	4	15.40%
Pain processes		
Present	13	50.00%
Absence	13	50.00%
Bleeding		
Absence	20	73.10%
Presence	6	26.90%
Drooling		
Yes	7	26.90%
No	19	73.10%
Communication changes		
Yes	10	38.50%
No	16	61.50%
Difficulty in feeding		
Yes	26	100.00%

DISCUSSION

Patients with oral and maxillo-facial disorders require a multidisciplinary approach in order to obtain a better result [11]. It is reported in the literature that involve disorders of this area a large number of individuals, which may occur individually or together as cranial injury, spinal and members [12].

The male population is the most affected, with traffic accidents and falls as the main causes of morbidity and mortality [13].

During a retrospective study which analyzed oral-maxillo-facial injuries associated with the use of alcohol and recklessness in traffic as a determining factor for the occurrence of facial injuries [14]. Published data also corroborate these findings correlating alcohol consumption with increased incidence of injuries by violence and motor vehicle accidents [15].

Thus, these data are similar to the present study, where most of the patients who underwent oral-maxillo-facial surgery is male 14 (54.8%), with working age and had as main causes of the affections traffic accidents 10 (38%).

Analyzing the site of greatest injury, we find first the jaw with nine (34.6%) bouts. This Figure is equivalent to the 2009 study, in which they express wide prevalence of mandibular occurrence, because of its anatomical location and for being the only mobile bone of the face, with greater vulnerability to receive impacts and lower bone support compared to jaw [16].

In contrast a study conducted in 2011 found that the most affected anatomical sites were intra-oral region and the nasal bone, especially the ease of fracture due to the thinness of the bone tissue [10].

The choice of treatment should be carried out according to the assessment of the patient's condition, considering its aesthetic and functional impairments. In the evaluation of the treatment, all 26 (100.0%) patients required surgical procedure. The patient should be submitted only to maxillo-facial surgery if the case is of extreme necessity, because the procedure can cause complications such as infections, facial paralysis, deformities and appearance of hypertrophic scars or keloids [17].

Published data confirm that the treatment of mandibular condyle involvement in the mandible causes functional damage as limiting the opening of the buccal and lateral deviations for the fractured side, and decreased range of motion of the joints and skeletal asymmetry [18]. These data were similar to that found in the study, since most patients had limitations in the mouth opening 19 (73%).

With regard to the appearance of edemas and nociceptive processes are no reports that these symptoms are common in individuals who have undergone these surgical procedures and modified in accordance with the difficulties presented in surgery [19]. This study is consistent with the finding of this research where 22 (84.6%) patients had postoperative edema, and as that found on the pain process introduced himself equal answers.

The sensitivity change becomes present in most cases of oral-maxillo-facial trauma, because the affected site, composition of their structures. Therefore this variable does not differ from that found in which 22 (84.6%) patients reported sensitivity of changes in oral-maxillo-facial region after surgery [20].

CONCLUSION

There was a predominance of male patients in the oral and maxillo-facial postoperative, where the variation between 35 to 49 years old was more frequent. The most prevalent etiology was caused by motorcycle accidents and falls, causes commonly found.

Regarding the local of most significant involvement was the mandibular region, followed by the zygomatic complex and jaw, where all required undergo surgery for its corrections. Surgical corrections are essential for rehabilitation of the patient, but like any type of treatment they are not exempt of risks such as infection at the surgical site and difficulties in oral rehabilitation.

Regarding the presence of nociceptive processes and edema, they were present in almost all patients. In this context it suggested a multidisciplinary follow-up of patients in the postoperative period in order to ensure greater rehabilitation and management of nociceptive processes.

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