



Research Article

REVIEW OF MANDIBULAR FRACTURES AT ALMOUJTAHED HOSPITAL DURING THE SYRIAN CRISIS

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ABSTRACT

Objective: This study aimed to review mandibular fractures related to Syrian crisis damages. **Materials and methods:** This is a retrospective study at AlMoujtahed Hospital (Damascus Hospital) between 1/1/2017 and 31/3/2018) including all cases of mandibular fractures related to war damages during the studied period. **Results:** We found 53 mandibular fractures related to gunshots, missiles and blasts. The most common cause of fractures was missiles. **Conclusion:** We found 53 cases of mandibular fractures. Missiles were the most common cause of mandibular fractures.

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INTRODUCTION

Wish of us to present the information impartiality and realistically, we worked hard to find out what happened through the Syrian war, which began at 2011, and left behind many injures, especially between 2012 and 2013. Syria was a victim of war. The Crisis affected all fields including health care services. AlMoujtahed Hospital (Damascus Hospital) is one of the biggest health care systems in Damascus. It has a large well-qualified medical staff and all the equipment required for different cases. After the war began, the healthcare providers had big challenges due to the increase in injures and an increase in the need for medications. Considering the increase in war related injuries, we made this study hoping to bring the light on war-related traumatic face injuries. This review focuses on traumatic face injuries (Mandibular fractures) due to Syrian Crisis and their causative agents (bombs, missiles and gunshots). As far as we know, this study is the first of its type in Syria.

MATERIALS AND METHODS

This study was a retrospective study of the patients who reviewed AlMoujtahed Hospital (Damascus Hospital) with mandibular fractures.

This study included all cases from 1/1/2017 to 31/3/2018. Only the authors to ensure the privacy collected all the data and all the names and personal information were blinded. Statistical analysis was done using SPSS 23.0.

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RESULTS

Table 1 Types and distribution of mandibular fractures

Fracture Type	Number of cases	% of total
Simple Mandibular Fracture	1	1.9
Comminuted Mandibular Fracture	1	1.9
Simple + Comminuted Fracture	1	1.9
Simple + Body Fracture	5	9.4
Multiple Simple Mandibular + Body Fracture	3	5.7
Tuberosity Process + Multiple Simple Fracture	1	1.9
Comminuted + Body Fracture	24	45.3
Comminuted + Tuberosity Process Fracture	1	1.9
Comminuted + Tuberosity Process + Body Fracture	13	24.5
Comminuted + Tuberosity Process + Body + Ramus Fracture	2	3.8
Multiple Simple + Tuberosity Process + Ramus Fracture	1	1.9

Table 2 Correlation between mandibular fractures and their causes:

Mandibular Fracture	Cause			Total	Chi Square test	p-value
	Bombs	Missiles	Gunshots			
N	5	28	20	53	70.248	0.000*
%	9.4%	52.8%	37.8%	100%		

Table 3 The relation between mandibular fractures with blood transfusion need

		Did not need blood transfusion	Needed blood transfusion	Total	Chi Square test	p-value
Mandibular Fracture	N	44	9	53	53.906	0.000*
	%	83.3%	16.7%	100.0%		

Table 4 Treatment of mandibular fractures

		N	%
Mandibular Fracture Management	Conservative	8	15
	Surgical	45	85

Table 5 Correlation between mandibular fractures and the need for hospital admission (hospitalization)

		Did not need Hospitalization	Needed Hospitalization	Total	Chi Square test	p-value
Mandibular Fracture	N	10	43	53	250.75	0.000*
	%	19%	81%	100.0%		

DISCUSSION

We found 53 cases of mandibular fractures in our study divided into 1 case of each of the following: isolated mandibular simple fracture, Mandibular Comminuted fracture, Simple fracture + Comminuted, multiple simple fracture+ Tuberosity process+ ramus, comminuted fracture+ Tuberosity process, Tuberosity process fracture+ multiple simple. We had 2 cases of Comminuted fracture+ Tuberosity process+ body+ ramus, 3 cases of multiple simple fracture + body, 5 cases of Simple fracture + body, and 13 cases of Comminuted fracture+ Tuberosity process+ body. The most common cases were Comminuted fracture+ body (24 cases, 45.3%). (Table 1).

We found a significant correlation ($p= 0.000$) between mandibular fractures and their causes (blasts, missiles or gunshots). Most of mandibular fractures were due to missiles (28 cases, 52.8% of all mandibular fractures), 5 cases were caused because of blasts (9.4% of all mandibular fractures) and 20 case was due to gunshots (37.8% of all mandibular fractures). (Table 2)

We found a significant correlation between mandibular fracture and the need for blood transfusion ($p=0.000$). In our study, most of the patients did not need blood transfusion. (Table 3)

Treatment of the fractures was either conservative in 8 cases (15%) or surgical in 45 cases (85%). (Table 4)

We found a significant correlation ($p=0.000$) between mandibular fractures and the need for hospitalization. 43 cases needed hospital admission (81.1% of all mandibular fractures), while 10 cases did not require it. (Table 5)

CONCLUSION

Most common mandibular fractures were comminuted fracture+ body followed by Comminuted fracture+ Tuberosity process+ body (45.3% and 24.5%, respectively). The majority of mandibular fractures were treated surgically. Missiles were the most common cause for mandibular fractures. Most of mandibular fractures needed hospitalization (81%).

Compliance with Ethical Standards

Funding: This study was not funded by any institution.

Conflict of Interest: The authors of this study have no conflict of interests regarding the publication of this article.

Ethical approval: The names and personal details of the participants were blinded to ensure privacy.

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