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### SECTION 20. Medicine.

## INCIDENCE OF NATURE OF TRAUMA IN SIALKOT; A CITY OF PAKISTAN

**Abstract:** Objective: To determine different types of trauma reported at tertiary care hospital in the city of Sialkot.

**Study design and duration:** This is a cross sectional study started on first January 2018 and completed on August 2018.

**Setting:** Study was conducted in Khawaja Muhammad Safdar Medical College Sialkot, Pakistan.

**Patients and methods:** Total 177 cases were studied which presented to emergency department of the study institution after trauma. Some of them were admitted in the hospital and which had minor trauma they were discharged after giving them management in the emergency department. A performa was designed containing relevant questions about age, mode of injury, RTA or fall, how long before it happened, site and type of fracture, open or close fracture, gender and any other associated injuries etc. All investigations were done from within the emergency ward. Initial management was given to all cases. Consent was taken from all cases for including their data in the study and permission was also taken from ethical committee of the hospital. After taking history of incidence complete examination of the patient was done and important points were documented on the performa. Data was analyzed on SPSS and Microsoft office version 2017 and results were calculated in the form of frequencies and percentage. Data expressed via tables and graphs. P-value less than 0.05 were considered significant.

**Results:** There were total 177 cases included in the study, which presented with trauma. Age range was 05-70 years with mean age of 36.7 years. In study group 129(73%) and 48(27%) were female cases. There was history of fall in 36(20.3%) cases and RTA in 118 cases. Open fracture was present in 30(17%) and closed fracture in 147(83%) cases. Gunshot was reported in 2(1.1%) and crush injury in 8(4.5%), CTEV in 2(1.1%), cystic lesions in 1(0.6%), compound fracture in 9(5.1%), septic arthritis in 2(0.1%), fracture of humerus in 7(4%), radius/ulna fracture in 12(6.8%), olecranon fracture in 4(2.3%) and potts fracture in 2(1.1%), patella fracture in 4(2.3%), femur fracture in 58(32.8%), fracture tibia and fibula in 44(24.8%), foot fracture in 8(4.5%), fracture of pharynx one or more in 3(1.7%), pubic rami fracture in 4(2.3%) and dislocation of joint was reported in 8(4.5%) cases.

**Conclusion:** Closed fracture is more common than open fracture and mostly male gender is involved in trauma. Most of the fractures occur in femur bone followed by tibia and fibula.

**Key words:** incidence of Trauma, long bone fracture, RTA, open and closed fracture

**Language:** English

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### Introduction

Road side accidents are increasing with the passage of time as traffic is increasing, speed of vehicles increasing and people are more in hurry to reach their destination so they drive fast and carelessly.<sup>1</sup> Most common reason of increasing traffic accidents in Pakistan is not following traffic rules properly by most of our population.<sup>2</sup> As male has responsibility of earning living and they work out door so they usually get involve in accidents as compared to female population who mostly spent their time indoor. In traffic accidents and fall from height usual injury involve bone fractures.<sup>3</sup> Femur is mostly involved in adults and in children humerus gets fracture usually. Closed fractures have higher incidence than open fractures.<sup>4</sup> Total 177 cases were studied which presented to emergency department of the study institution after trauma. Some of them were admitted in the hospital and which had minor trauma they were discharged after giving them management in the emergency department. Closed fracture is more common than open fracture and mostly male gender is involved in trauma. Most of the fractures occur in femur bone followed by tibia and fibula.<sup>5</sup> There is high mortality rate in RTA when victim is driving two wheel vehicle than four wheeler, as on motor bike person falls away and is uncovered and more exposed to injury than the person sitting in a car. Brain injury, bowel rupture, liver trauma and spleen rupture are associated injuries in RTA beside bone fracture. Some of them were admitted in the hospital and which had minor trauma they were discharged after giving them management in the emergency department. A performa was designed containing relevant questions about age, mode of injury, RTA or fall, how long before it happened, site and type of fracture, open or close fracture, gender and any other associated injuries etc.<sup>6</sup> All investigations were done from within the emergency ward. Initial management was given to all cases. Consent was taken from all cases for including their data in the study and permission was also taken from ethical committee of the hospital. Making traffic rules more strict can reduce rate of RTA in Pakistan.

### Patients and methods

This is a cross sectional study conducted in a tertiary care hospital in Sialkot a city in Pakistan. This study was completed in a duration of eight months. Total 177 cases were studied which presented to emergency department of the study institution after trauma. Some of them were admitted in the hospital and which had minor trauma they were discharged after giving them management in the emergency department. . Most common reason of increasing traffic accidents in Pakistan is not following traffic rules properly by most of our population. As male has responsibility of earning

living and they work out door so they usually get involve in accidents as compared to female population who mostly spent their time indoor. In traffic accidents and fall from height usual injury involve bone fractures. Femur is mostly involved in adults and in children humerus gets fracture usually. A performa was designed containing relevant questions about age, mode of injury, RTA or fall, how long before it happened, site and type of fracture, open or close fracture, gender and any other associated injuries etc. All investigations were done from within the emergency ward. Initial management was given to all cases. Consent was taken from all cases for including their data in the study and permission was also taken from ethical committee of the hospital. After taking history of incidence complete examination of the patient was done and important points were documented on the performa. Data was analyzed on SPSS and Microsoft office version 2017 and results were calculated in the form of frequencies and percentage. Data expressed via tables and graphs. P-value less than 0.05 were considered significant. Which patients were critically injured they were kept in surgical ICU and those with stable condition with minor trauma or fracture were treated in COD and called for follow up in out-door of the hospital.

### Results

All patients with trauma were included in this study. Some of them were admitted in the hospital and which had minor trauma they were discharged after giving them management in the emergency department. A performa was designed containing relevant questions about age, mode of injury, RTA or fall, how long before it happened, site and type of fracture, open or close fracture, gender and any other associated injuries etc. All investigations were done from within the emergency ward. Initial management was given to all cases. There were total 177 cases included in the study, which presented with trauma. Age range was 05-70 years with mean age of 36.7 years. In study group 129(73%) and 48(27%) were female cases. There was history of fall in 36(20.3%) cases and RTA in 118 cases. Open fracture was present in 30(17%) and closed fracture in 147(83%) cases. Gunshot was reported in 2(1.1%) and crush injury in 8(4.5%), CTEV in 2(1.1%), cystic lesions in 1(0.6%), compound fracture in 9(5.1%), septic arthritis in 2(0.1%), fracture of humerus in 7(4%), radius/ulna fracture in 12(6.8%), olecronon fracture in 4(2.3%) and potts fracture in 2(1.1%), patella fracture in 4(2.3%), femur fracture in 58(32.8%), fracture tibia and fibula in 44(24.8%) , foot fracture in 8(4.5%), fracture of phalynx one or more in 3(1.7%), pubic rami fracture in 4(2.3%) and dislocation of joint was reported in 8(4.5%) cases.

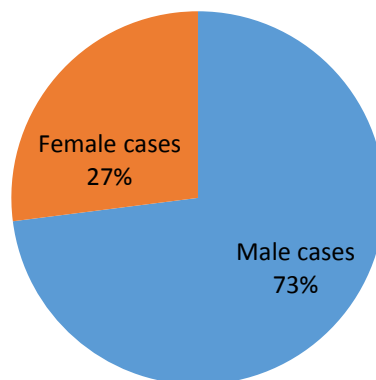


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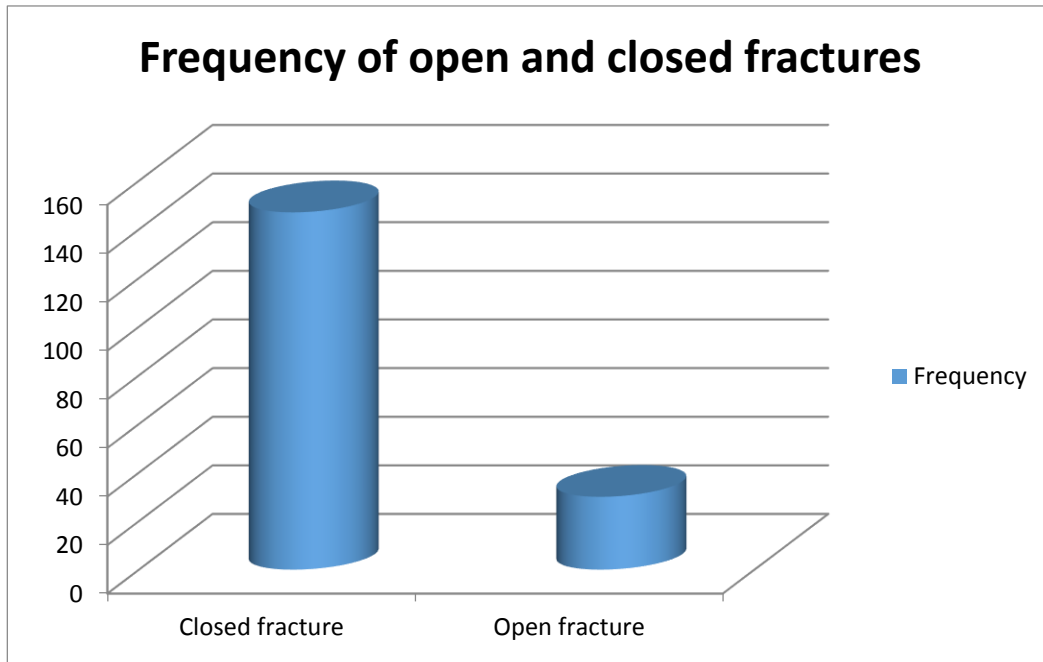
**Table-1. Frequency of different types of trauma reported in study group**

Type of trauma reported	Number of patients (N)	%
Femur fracture	58	32.8
Tibia fibula fracture	44	24.8
Gunshot wound	2	1.1
CTEV	8	4.5
Crush injury	2	1.1
Cystic lesion	01	0.6
Compound fracture	9	5.1
Septic arthritis	2	1.1
Fracture of humerus	7	4
Radius/ulna fracture	12	6.8
Olecrenon fracture	4	2.3
Potts fracture	2	1.1
Fracture of patella	4	2.3
Fracture of foot	8	4.5
Phalynx fracture	3	1.7
Fracture of pubic rami	4	2.3
Dislocation of joint	8	4.5
Totaal	177	100

**Gender distribution in study group**

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### Discussion

In well developed countries traffic rules are strict and that's why there road traffic accidents rate is lower than developing and under developed countries.<sup>6</sup> More use of motor bikes is associated with more incidence of RTA and serious trauma during accident. Road side accidents are increasing with the passage of time as traffic is increasing, speed of vehicles increasing and people are more in hurry to reach their destination so they drive fast and carelessly.<sup>7</sup> Most common reason of increasing traffic accidents in Pakistan is not following traffic rules properly by most of our population. As male has responsibility of earning living and they work out door so they usually get involve in accidents as compared to female population who mostly spent their time indoor.<sup>8</sup> In traffic accidents and fall from height usual injury involve bone fractures. Femur is mostly involved in adults and in children humerus gets fracture usually. There were total 177 cases included in the study, which presented with trauma. Age range was 05-70 years with mean age of 36.7 years. In study group 129(73%) and 48(27%) were female cases.<sup>9,10</sup> A performa was designed containing relevant questions about age, mode of injury, RTA or fall, how long before it happened, site and type of fracture, open or close fracture, gender and any other associated injuries etc.<sup>11</sup> All investigations were done

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