Addressing the burden of orthopedic trauma and categorically identifying the pattern of injuries presenting at Trauma Center Civil Hospital Karachi, Pakistan

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Objective: This study was executed to address the burden of orthopedic trauma presenting in Trauma Centre Civil Hospital, Karachi, Pakistan. 500 bedded trauma center is serving all kinds of trauma 24 hours a day with all state of the art facilities and is fully equipped with latest machinery. It is the largest emergency institute of Sindh till date. This study also presents the pattern of injuries categorically, that we are encountering in daily emergency.

Method: This descriptive study was conducted from Sept 2017 to Dec 2017. An informed verbal consent was taken and preformed questionnaire was filled. Patient brought dead and those who were having injuries other than the orthopedic injury were excluded. Data was analyzed using SPSS 21 for statistical significance.

Result: The study was conducted on 2850 patients of all age group, which makes an average of 30 patients per day, including 1957 males (68.7%) and 893 females (31.3%). Among the total, the number of patients of pediatric age group (1 to 12 years) were 942 (33.05%). Mean age was 35 in adults. SD 28. 69 maximum injuries occurred in age group of 10-30 years. By occupation most were found to be students and children-659 (23.1%). Most traumas occurred due to road traffic accidents-2193 (76.9%) and other occurred at home-657 (23.05%). Road traffic accidents are found to be major cause of injuries and rest was due to other causes. Majority of patients were brought by ambulance service with any first aid given. By addressing the categorical arrangement of patients with their pattern of injuries, the cases with mild type of injury like foreign body, soft tissue trauma and muscular pain of sudden onset-446 (15.6%). The patients with single bone closed fractures including clavicle fracture-180 (6.31%), humerus neck and shaft fracture-83 (2.91%), supra-condylar humerus fractures-355 (12.4%), radius/ulna shaft-90 (3.1%), colles fracture-389 (13.6%), neck of femur fracture-56 (1.96%), intertrochanteric fracture-62 (2.1%), femur shaft fracture-186 (6.5%), fracture of tibia/fibula-133 (4.6%) and bi-malleolar fracture-45 (1.57%). The patients which suffered from joint dislocations like shoulder-48 (1.68%), elbow dislocation-17 (0.59%), hip dislocation-22 (0.77%) were also addressed. Some patients were having severe injuries including multiple fractures, major contaminated open wounds, traumatic amputations, crushed limbs or with head injury-43 (3.06%). Very few cases were cold-42 (5.6%) and some patients were included which are unknown and those whose data were lost-695 (24.3%).

Conclusion: We concluded that huge number of trauma patients are presenting to trauma center with polytrauma, trauma to pelvis and acetabulum, more than one bone fractures. Extensive trauma is disabling to young population throughout life. So, trauma patients should be properly evaluated and treated according to advanced trauma life support to prevent the second hit injury to patient. We suggest that primary prevention is the key that we can achieve by strict traffic rules; otherwise the burden can lead to mismanagement of trauma patient.

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