



PATTERNS OF PEDIATRIC THORACIC PENETRATING INJURIES: A SINGLE TRAUMA CENTER EXPERIENCE - RIYADH, SAUDI ARABIA

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INTRODUCTION

Trauma in pediatric age group is a major cause of morbidity and mortality. Locally, the prevalence, causes and magnitude of pediatric trauma differs from region to region. Many local studies have focused on blunt injuries but not on pediatric penetrating trauma. Our aim is to identify the patterns, characteristics and outcome of pediatric thoracic penetrating injuries in a single trauma center.

METHODOLOGY

We conducted a retrospective chart review of pediatric patients who presented with thoracic penetrating injuries from the year 2001 till 2016 in a level 1 trauma center. The center is located at the central region Riyadh, Saudi Arabia. Patients aged 18 years or less who presented to the emergency department (ED) with thoracic penetrating injury were included. Those transferred from other institutions were excluded.

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RESULTS

The total number of patients included with penetrating thoracic injuries were 89. Mean age was 15.5 years. One female the rest were males. 77.5% were intentional injuries while 10.1% were unintentional. The most common mechanism of injury is stab wound by knives in 80%, Gunshot in 12% and the remaining minority were air-gun, sharp objects and glass. Their mode of transport to ED was by private vehicles in 75.3% and by an ambulance in 23.6%. Type of injuries sustained were pneumothorax (70.7%), hemothorax (25.8%), diaphragmatic injury (5.6%), hemopericardium (4.49%), lung contusion and laceration (7.8%), cardiac injury (4.49%), major vessel injury (3.4%), pneumomediastinum (2.2%), esophageal injury (1.1%) and rib Fractures (1.1%). In ED, endotracheal intubation required in (13.5%), chest tube insertion (73%), blood transfusion for resuscitation (16.8%), emergency thoracotomy (2.2%), pericardiocentesis (1.1%). Surgical intervention was required in 17%. Mean length of hospital stay 3.87 days $\pm$ 4.86 SD. 93% of patients did not require ICU admission and were managed in regular wards. Mortality was observed in 3.4% were all had injuries to either heart, aorta or inferior vena cava. None has survived after emergency thoracotomy in ED.

CONCLUSION

In our institution, extremity is the most common body region involved in penetrating injuries representing 60.5%. Thoracic injuries were found uncommon and represent 25%. Most sustained penetrating thoracic injuries can be managed nonoperatively safely. However, prompt resuscitation and intervention are required to identify and manage life-threatening ones

Figure 1

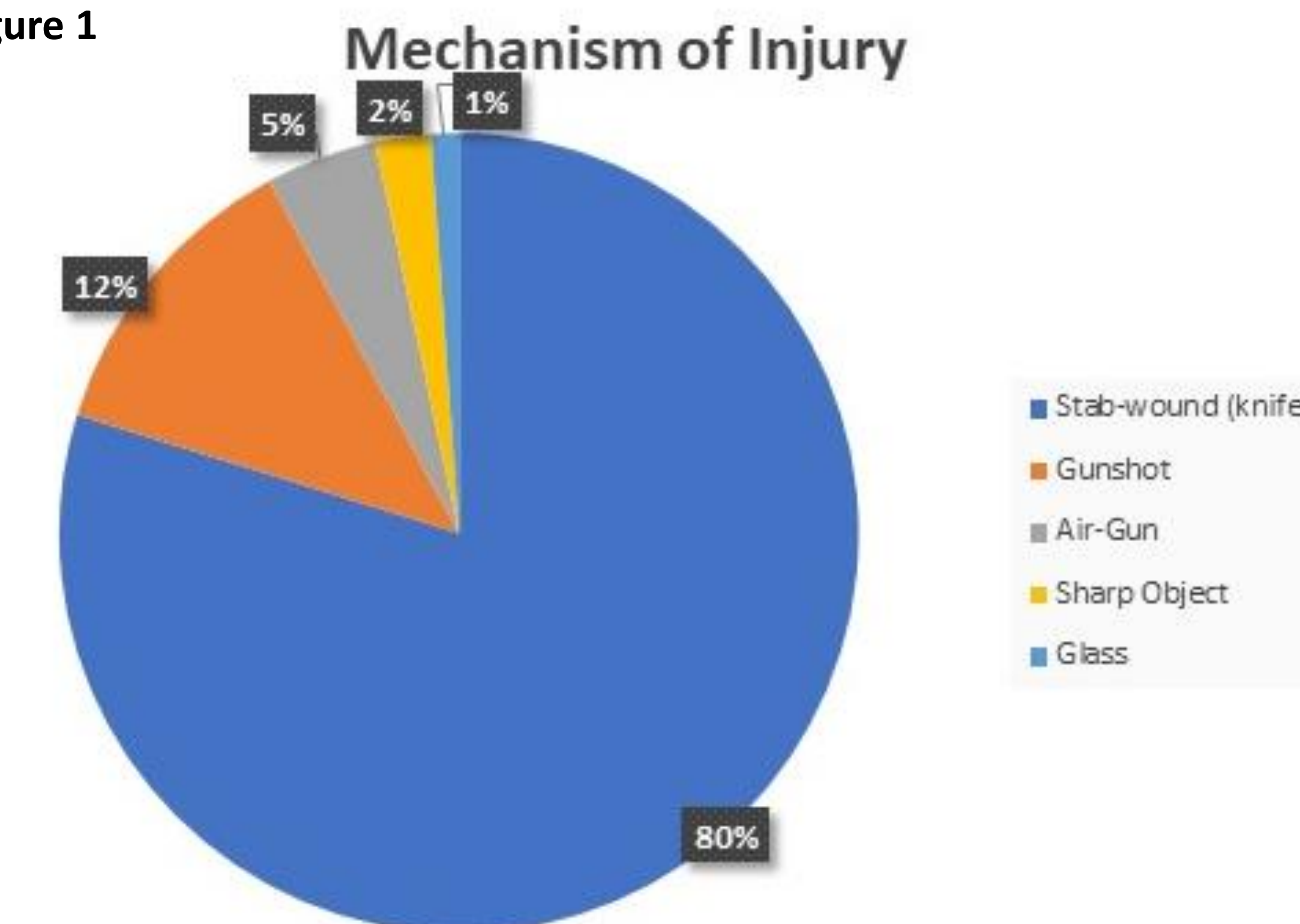


Figure 2

