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Penetrating Neck Injury: No Zone Approach

Authors : Abhishek Sharma, Amit Gupta, Manish Singhal

Abstract : Background: The management of patients with penetrating neck injuries in the prehospital setting and in the emergency department has evolved with regard to the use of multidetector computed tomographic (MDCT) imaging. Hence, there is a shift in the management of neck injuries from mandatory exploration in certain anatomic areas to more conservative approach using imaging and so-called “no zone approach”. Objective: To study the no zone approach in the management of penetrating neck injury using routine imaging in all stable patients. Methods: 137 patients with penetrating neck injury attending emergency department of level 1 trauma centre at AIIMS between 2008–2014 were retrospectively analysed. All hemodynamically stable patients were evaluated using CT scanning. Results: Stab injury is most common (55.91%) mode of pni in civilian population followed by gunshot(18.33%). The majority of patients could be managed with imaging and close observation. 39 patients (28.46%) required operative intervention. The most common indication for operative intervention was vascular followed by airway injury manifesting as hemodynamic destabilisation.There was no statistical difference between the zonal distribution of injuries in patients managed conservatively and those taken to OR. Conclusions: Study shows that patients with penetrating neck trauma who are haemodynamically stable and exhibit no “hard signs” of vascular injury or airway injury may be evaluated initially by MDCT imaging even when platysma violation is present. “No Zone” policy may be superior to traditional zone wise management.

Keywords : penetrating neck injury, zone approach, CT scanning, multidetector computed tomographic (MDCT)
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