Summary

The thoracic cavity is made up of two structures; the rigid bony structures and the dynamic respiratory muscles. Adequate ventilation depends on an intact chest wall. Sufficient trauma to the chest can result in injury to the bony thorax and soft tissues of the chest wall, increasing morbidity and mortality. **(Sirmali., et al., 2003).**

Chest injuries occur in approximately 4–6% of children and adult hospitalized for trauma and are responsible for approximately 25% of deaths in children. Chest trauma is the second most common cause of trauma death behind neurological trauma. Blunt trauma is by far the most common type of chest trauma, making up 85% of chest trauma cases. **(Sartorelli & Vane, 2004).**

The injuries may result from various forms of trauma; penetrating, blunt, explosive, inhalation, barotraumas and foreign body injuries. The consequent trauma to the thorax may result in injury to anyone or frequently more of the thoracic structures: heart, great vessels, lungs, pleura, major airways, esophagus, diaphragm, abdominal organs and chest wall **(Bleetman et al., 2006).**

The most important cause of significant blunt chest trauma is motor vehicle accidents (MVAs). MVAs account for 70-80% of such injuries. As a result, preventive strategies to reduce MVAs have been instituted in the form of speed limit restriction. Pedestrians struck by vehicles, falls, and acts of violence are other causative mechanisms. Blast injuries can also result in significant blunt thoracic trauma. **(Mary, 2008).**

Initial evaluation of each patient must be directed at correcting life-threatening conditions immediately and documenting the less serious injuries for later correction. Imaging modalities are used, when possible, to confirm diagnosis suspected by findings on physical examination and to assess the efficacy of therapeutic interventions directed at alleviating specific conditions. Chest radiographics are the most frequently used modality, followed closely by

computed tomography (CT). CT has become increasingly available in emergency departments throughout most hospitals in recent years. The use of ultrasonography in the emergency department also has increased as its availability has risen. More sophisticated modalities, such as magnetic resonance (MR) imaging, may be helpful in further characterizing injuries after the patient has been stabilized and can be transported with little potential threat of exacerbating injuries **(Lyne, 2007).**

The cause of death after endobronchial bleeding associated with blunt chest trauma is suffocation by the patient's own blood. Massive endobronchial bleeding after blunt chest trauma is usually treated by pneumonectomy or pulmonary lobectomy with emergency thoracotomy **(Melloni et. al., 2003).**

Tube thoracostomy is an essential procedure in the management of patients with thoracic trauma and it is the definitive treatment for the majority of both pneumothoraces and hemothoraces in blunt and penetrating mechanisms of injury. Large catheter tube thoracostomy has long been the gold standard for the removal of air or blood from the pleural space, with blind placement of a large-bore chest tube through a small intercostal incision as the technique of choicein about 98%. **(Livingston and Hauser, 2004).**