Complications of tube thoracostomy in 603 patients

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Background: Tube thoracostomy is the most frequent intervention performed in thoracic surgery divisions. We aimed to discuss the probable complications and the required measurements for the complications.
Materials and Methods: Between January 2002 and December 2005, 603 patients who have been inserted tube thoracostomy were retrospectively analysed.
Results: Five hundred and eighteen cases (85,9%) were male, 85 patients (14,1%) were female. Mean age was 32,3 years (range, 12- 80). Tube thoracostomies were inserted into the left hemithorax in 299 patients (49,6%), right hemithorax in 281 (46,6%), and bilateral hemithoraces in 23 (3,8%); in total 626 patients.
Two hundred and ten patients (36.9%) had penetrating trauma, and 359 (63.1%) had blunt trauma. The most frequent etiology was the stab injuries (n=179; 29,7%) and the pneumothorax (n=366; 58,5%) were the most frequent indications for tube thoracostomy. The most frequent complication was the ineffective drainage (n=12; 1,9%). The other complications were detachment of the tube stoma (n=3), tube malposition (intra-parenchymal (n=3); stomach perforation (n=1), tube dislocation (n=2), and complications of tube removal (recurrent pneumothorax (n=3); accidentaly transection of the tube (n=1)), respectively. The total number of the cases with complication was 27 (4.31%). Open thoracotomy was performed for 8 cases (1.3%) for the tube complications. Mean drainage time was 3.6 days (range, 2–17) and the mean hospital stay was 5.3 days (range, 3-18).
Conclusion: Tube thoracostomy is a life-saving and safe procedure having low morbidity. The morbidity and the mortality due to the tube thoracostomy will be less if the probable complications and the therapeutic measurements are known well. Additioanlly, this will result in high cost-effectivity.