

MONDAY, SEPTEMBER 20TH 2010

254. Video-assisted thoroscopic surgery, novel technical devices and tracheal problems

P2756

Analysis of 54 patients who underwent toroscopic sympathectomy

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Aim: Toroscopic sympathectomy is associated with a high compensatory sweating rate. In this study, we aimed to present of our experience with Toroscopic Sympathectomy in 54 patients who were operated from various level of sympathetic trunk.

Material and Method: Medical records of 54 patients who underwent Toroscopic Sympathectomy for primary hyperhidrosis were analysed, retrospectively. We contacted with all patients except four via telephone.

Results: A total of 54 patients were treated between 2006-2008. There were 44 male patients and 10 female patients. The median age was 24.3 years. Indications, level of resection, type of resection were summarized in Table 1.

Table 1

Indications for surgery	n
Palmar hyperhidrosis	28
Palmar and plantar hyperhidrosis	11
Palmar and axillary hyperhidrosis	7
Axillary hyperhidrosis	8
Wideness and Level of the Resection	
T2 and T3 ganglionectomy	30
T2 ganglionectomy	14
T3, T4 and T5 ganglionectomy	6
T3 ganglionectomy	2
T3 and T4 ganglionectomy	2
Type of sympathectomy	
En bloc resection	36
Ablation with electrocotery	18

All of the 54 patients with primary symptoms of palmar and axillary hyperhidrosis reported excellent satisfaction (100%). Compensatory sweating was reported in 6 (100%) of the T3-4-5 group, 16 (53%) of the T2-3 group, and 3 (21%) of the T2 group. The mean hospitalization time was 2.7 days. Compensatory sweating was significantly higher when we resected the sympathetic trunk longer.

Conclusion: Toroscopic Sympathectomy is the cornerstone of treatment of primary hyperhidrosis. However; serial studies are needed which were evaluated the relationship between the compensatory sweating and resection of level of sympathetic trunk.

P2757

Transcervical videomediastinoscopic approach of the left main bronchus - A simple procedure with multiple indications

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Objective: The transcervical videomediastinoscopic approach (first described by Azorin) of the left main bronchus has different indications either for bronhial stump left fistula, either for bronhial cutting prior to left pneumonectomy

Material and method: At a 22 y old boy we resect the main left bronchus prior to a pneumonectomy performed for an destructed lung with multiple fistula and piothorax. After improvement of general status the simplified pneumonectomy was performed.

Second case was a left main bronchus long stump fistula post a pneumonectomy for aspergiloma. at a 35 y old women with a left pneumonectomy with Elloesser cleaning window.

Results: In both cases the operative time was around 1 hour with an improved performance (45 min) for the bronhial resection in prepneumonectomy case. Minimal blood loses and anatomical disturbance permit a very sure bronhial stump healing- bronhoscopically confirmed 2 and 4 weeks postoperatively

Very good improvement of the cashetic status post bronhial closure with epitelization of the staple line before pneumonectomy and good imediate result of pneumonectomy, with a very good resistance of the bronhial stump to pleural consecutive washing procedures.

Conclusion: Minimal invasive transcervical videomediastinoscopic assisted approach of the left main bronchus had already 2 different indications as a safe procedure prior or post pneumonectomy. It is important to keep this possibility in mind for experienced mediastinoscopists in limited and special cases. The mediastinum is a clean and anatomically clear space where the left main bronchus can be approached safe, with minimal trauma and minimal operative distress

P2758**Value of video-assisted thoracoscopic surgery (VATS) in the diagnosis and treatment of in mediastinal and pleura-pulmonary diseases**

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Objective: Thoracoscopy offers great advantages when compared to open surgery in terms of postoperative pain and pulmonary complications. Thoracoscopy is safe and feasible with minimal morbidity. The purpose of this study is to evaluate the indications, surgical procedures, complications, and failure rates of VATS in the diagnosis and treatment of intrathoracic diseases.

Material and method: One hundreds seventy patients 112 men and 58 women, with age ranging from 17 to 75 years (mean 45.7 years) underwent one hundreds seventy VATS procedures. Indications included pneumothorax (50), empyema (20), solitary pulmonary nodules (23), diffuse lung disease (12), undiagnosed pleural effusions (40), mediastinal masses or cysts (20), bronchiectasis with hemoptysis (5).

Results: Of the 170 VATS procedures, 157 (92.4%) procedures were successfully performed. Thirteen patients required conversion to thoracotomy. There were 19 postoperative complications: prolonged air leak for more than 5 days was seen in 8 patients & Wound infection occurred in 3 patients. The success rate of the diagnostic, therapeutic, D&T procedures were (91%, 93.3% & 92.2%) respectively. Only small doses of analgesics were needed. There was no intraoperative mortality. The mean operative time, duration of chest tube drainage and postoperative hospital stay were (71 minutes, 2.5 days & 5.1 days) respectively.

Conclusion: VATS is a safe and effective method for diagnosis and treatment of intrathoracic diseases. Patients had benefit in reduced postoperative pain, short hospitalization, short recovery times and good cosmetic result.

P2759**The role of video-assisted cervical mediastinoscopy in mediastinal nodal assessment**

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Cervical mediastinoscopy is a common procedure for the diagnostics of mediastinal lymphadenopathy and staging of lung cancer.

Methods: From 2005 to 2009 a total of 127 video-assisted cervical mediastinoscopies were performed in our clinic.

Indications for the procedure were the following: lung cancer with enlarged mediastinal lymph nodes -74 cases, mediastinal lymphadenopathy of unknown etiology - 53 cases.

Results: In first group metastatic changes in lymph nodes were stated in 23 (31,1%) patients, the rest of the patients (51; 68,9%) underwent subsequent thoracotomy. In second group the diagnosis of sarcoidosis were obtained in 32 cases, lymphoma - in 18, anthracosilicosis - in 2, nonspecific reactive lymphadenitis - in 1 case. There were one intraoperative complication (hemorrhage from pulmonary artery which was stopped by tight tamponade). No postoperative complication and mortality occurred.

Conclusion: Video-assisted cervical mediastinoscopy is safe and effective procedure in nodal assessment of the mediastinum.

P2760**Secondary spontaneous pneumothorax – Is VATS better than thoracotomy?**

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Background: That is not clearly whether pleurectomy using open or VATS procedures resulted in better outcomes for pneumothorax in patients with interstitial lung diseases.

Methods: We prospectively reviewed 23 patients with interstitial lung diseases who underwent thoracotomy (12) and video-assisted thoracic surgery (11) pleurectomy for spontaneous pneumothorax. The median follow-up period was 38 months postoperatively.

Results: The median operating time was significantly shorter in VATS than thoracotomy cases (62 vs. 82 min; p=0,01). Postoperative chest tube drainage was shorter in VATS group. There were no differences in chest tube duration (2,1 vs. 2,2 days; p=0,34) and postoperative hospital stay (6,1 vs. 6,8 days; p=0,12). Short-term complications were: prolonged air leak (18%) and haemothorax (9%) in VATS group and non in open group. Postoperative pneumothorax recurrences were significantly more frequent in VATS group (27% vs. 0; p=0,00).

Conclusions: Pleurectomy by thoracotomy resulted in better outcomes than VATS pleurectomy for spontaneous pneumothorax in interstitial lung diseases.

P2761**Medical thoracoscopy at patients with pleural effusion: Diagnostics and treatment, what's more?**

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Combination of diagnostic and medical components of medical thoracoscopy helps to manage the course of disease. Application of medical thoracoscopy on the first phase of disease is the perspective approach in the treatment of pleurisy. In the department of thoracic surgery there are 273 medical thoracoscopy have been performed in period from 1999 to 2008 years. The tactics for definition of indications for thoracoscopy depends on duration of pleurisy, its sizes, characteristics of anamnesis, presence of multiple encapsulations. At thoracoscopy were diagnosed: tuberculosis – at 78 patients, mesothelioma – at 58 patients, metastatic pleurisy – 7 patients, non-specific pleurisy – 112 patients. Big number of patients with non-specific pleurisy is the consequence of the fact that pleura becomes inflamed at many diseases. Exclusion of specific cause of pleurisy at these patients directs to adequate therapy. Also, application of thoracoscopy reveals such rare pathology as sarcoidosis of pleura – at 16 patients, ascariasis of pleura – at 1, yellow nail syndrome – at 1 patient. After diagnostics we perform the dissection of encapsulations, elimination of fibrin, lung decortication. So the value of diagnostic and medical components of medical thoracoscopy is equivalent. Small trauma of operation and possibility of local anesthesia are positive sides of this method. Early application of thoracoscopy furthers to quick start of etiotropic therapy, prevents multiple encapsulations, development of empyema.

P2763**Our autofluorescence VATS experience: 6 cases**

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VATS is performed for diagnosis and treatment of pleural pathologies. It is seen that white light is insufficient in some lesions especially for premalignant lesions in endoscopic procedures like bronchoscopy and autofluorescence systems is used. It has been used in thoracoscopy also. We would like to discuss our 6 cases here, even it is a small serie, because as far as we know autofluorescence VATS is first used in our clinic in Turkey and they are the first experiences.

Autofluorescence VATS was used in 6 cases, 1 female, 5 male with age range between 22 and 58 in our clinic. The diagnosis was not achieved from previously performed examinations to explain the etiology of pleural fluid.

Results

Patient	Colour	Nodule	Pleural Thickness	Pleural Autofluorescence	Diagnosis
1	white brown	+	+	-	epitoid type malignant mesothelioma
2	white	+	+	+	epitoid type malignant mesothelioma
3	white	-	+	+	organised chronic fibrinous pleuritis
4	pink	+	+	+	hodgkin lymphoma nodular sclerosing type
5	white	-	+	-	epitoid type malignant mesothelioma
6	white	+	+	+	metastasis of signet-ring cell carcinoma

It was seen that in autofluorescence examination, 4 of 5 cases with malignant diseases were positive. Malignant mesothelioma may be one of the situations that this system may give false results. Autofluorescence VATS was positive in one benign pathology. That system was also very useful in determining the biopsy sites and mapping. Those results showed us that correct evaluations might be achieved if the number of cases were getting larger. After our experiences are getting wider, we could know in which cases autofluorescence might be a leading technique in cases underwent thoracoscopy.

P2764**Application of the endobronchial valve as a method to stop lung hemorrhage**

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Topicality: In spite of the development of surgery and pulmonology, the problem of lung hemorrhage (LH) remains topical.

Aim of the Research: Efficiency increase of a complex treatment of patients with lung hemorrhages.

Materials and Methods: We have developed and clinically certified the method of the temporary bronchial occlusion (TBO) with the help of the original endobronchial valve (EV) when the draining function of the blocked bronchus and destruction cavity is preserved to stop lung hemorrhage by means of forming the selective therapeutic hypoventilation and atelectasis. 75 patients (basic group (BG)) having undergone the complex LH treatment were made the TBO with the help of the EV, and 53 patients of the contrast group (CG) were set the TBO by a foam rubber obturator. Both groups were comparable.

MONDAY, SEPTEMBER 20TH 2010

Results: The duration of occlusion in the BG was 212,3±91,4 days, the maximum time being 515 days. The duration of the occlusion in the CG was 9,3±6,4 (P<0,05) and 30 days. After blockage removing the LH recurrence was noted in 2 (2,7%) patient in the BG and 8 (15,1%) in the CG (P<0,05). By urgent indications 3 (4,2%) operations were performed in the BG and 16 (30,2%) in the CG (P<0,001). Different complications after the temporary bronchial occlusion occurred in 21 (28,0%) patients in the BG and 46 (86,8%) patients in the CG (P<0,001). Hemoaspirating pneumonia occurred in 4 (5,3%) patients in the BG and 17 (32,0%) in the CG (P<0,001). Lethality made up 3 (4,0%) patients in the BG and 16 (30,2%) patients in the CG (P<0,001).

Conclusion: Thus, the application of EV is the effective method to stop lung hemorrhage at lung tuberculosis.

P2765

Application of the endobronchial valve in complex treatment of patients with the bronchopleural fistulas after lung resection

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Topicality: Bronchopleural fistulas and empyema pleurae are still among the most severe and frequent postoperative complications in thoracic surgery.

Aim: Efficiency increase of the complex treatment of patients having pleural empyema with the bronchopleural fistulas by means of the original endobronchial valve application.

Materials and Methods: The endobronchial valve application into the draining pleural empyema was performed to 77 patients (basic group (BG)) to block a bronchopleural fistula, and 58 patients of the contrast group (CG) had the temporary bronchial occlusion by a foam rubber obturator. The groups were comparable.

Results: At hospital stage the elimination of the pleural empyema and bronchopleural fistula closing were noted in 71 (92,2%) patients in the BG and 40 (69,1%) in the CG one (P<0,01). The duration of the temporary bronchial occlusion in the BG was 31,3±2,1 days, the maximum time being 47 days, and in the CG it was 10,3±7,4 (P<0,02) and 17 days. Obstructive purulent endobronchitis of the blocked bronchus was noted in 4 (5,2%) patients in the BG and 55 (94,8%) patients in the CG one (P<0,001). The residual cavity with the bronchial fistula couldn't be eliminated with the help of this method in 6 (7,8%) patients of the BG and 18 (31,0%) patients of the CG (P<0,05). The average treatment period in the BG was 54,3±2,1 and 136,3±3,2 in the CG (P<0,001).

Conclusion: The endobronchial valve application allows to eliminate the postresectional bronchopleural fistulas effectively.

P2766

Application of the endobronchial valve in complex treatment of drug-resistant lung tuberculosis

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Topicality: In modern conditions of growing of medicinal stability of tuberculosis microbacterium (MBT) the role of unmedicamentous miniinvasive methods of treatment essentially grows.

Aim: The increase of efficiency of a complex treatment of patients with a destructive drug-resistant tuberculosis of lungs (DRT).

Materials: results of treatment of 116 patients with widespread DRT are analyzed. 99 (85,3%) patients had a multiple DRT. In 71 patients within a complex treatment of destructive forms DRT it is used endobronchial valve application (EVA) (basic group (BG)), and to 45 patients – it is applied the artificial pneumothorax (AP) (contrast group (CG)). Groups were comparable.

Results: In 6 months after the beginning of a complex treatment the termination of allocation of Mycobacterium tuberculosis was obtained in 65 (91,5%) patients in BG, and in CG – 28 (62,2%) (P<0,001). In 6 months after the beginning of a complex treatment closing of cavities of disintegration in BG occurred in 28 (39,4%) patients, in CG 4 (8,9%) (P<0,001). In BG the duration period averaged EVA 226,2±11,8 days, the maximal term of occlusion – 365 days. Duration of the AP – 206,3±9,1 days (P>0,05), the maximal term – 301 days. In BG after EVA complications were observed in 4 (5,6%) patients, in CG – 23 (51,1%) (P<0,001).

Conclusion: EVA is an effective non-medicamentous method of DRT treatment.

P2767

Needlescopic video-assisted thoracic surgery for primary spontaneous pneumothorax

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Interest in minimally invasive surgery has seen a dramatic increase, in not one but many fields. Never before has there been such demand for smaller incisions, smaller scars, and minimized recovery time.

In response to this growing trend, our team, in Aug. 2006, started implementing needlescopic video-assisted thoracic surgery as the standard surgical treatment for primary spontaneous pneumothorax, instead of the conventional video-assisted thoracic surgical method.

During a Fourteen-month period, 49 consecutive patients presenting with primary spontaneous pneumothorax were operated on. Comparisons between the ages, sex ratio, operative times, blood loss, postoperative pain (using visual analog scale VAS), length of stay, and hospital costs of this first group were made between that of another group of 49 consecutive patients who received conventional video-assisted thoracic surgery between June 2004 and July 2006. Only postoperative pain (using VAS) was found to be significantly lower in the needlescopic video-assisted thoracic surgery group; the rest remained relatively the same. The wounds of the nVATS patients were found to be almost undetectable. There was no major complication, mortality or recurrence in either group. Needlescopic video-assisted thoracic surgery has been found to be a high-tech technique that provides effectiveness, economy and outcome comparable to that of conventional techniques, with the added benefit of a decrease in pain and improved cosmetics.

P2768

Endobronchial valve application in a complex treatment of a spontaneous pneumothorax

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Topicality: The problem of treatment of spontaneous pneumothorax (SP) remains topical in connection with the increasing of disease frequency and high frequency of operations.

Aim: Efficiency increase of the treatment of patients with SP.

Materials and Methods: The results of 52 patients with SP are analyzed. The endobronchial valve application (EVA) was performed to 26 (50%) patients (basic group (BG)) and 26 (50%) patients of the contrast group (CG) got traditional treatment. All patients in clinic were made a drainage of a pleural cavity with an active aspiration. For all analyzed patients within 6-7 days solid escape of air on drainages was saved, as was the indication to EVA in BG. Efficacy of treatment was evaluated according to the lung straightening and the arrest of escape of air at drainages, wanings bullate changed epines of a pulmonary tissue. The radiological supervisory control was done in 2-3 days. Computed tomography was performed under indications in 6-8 days. The groups were comparable.

Results: For all analyzed patients in BG EVA allowed to straighten a lung, to obtain the waning bullate changed epines of the lung with consequent closure of a bronchial pleural fistula. In CG for 3 (11,5%) patients it was necessary to make resections of the lung. Duration of EVA averaged 37,2±3,9 days, maximum time – 76 days. Complications: growths granulations – one patient, intensifying of symptoms of bronchial obstruction – one patient.

Conclusion: EVA is an efficient miniinvasive method of treatment of SP, permitting to improve outcomes of treatment.

P2769

Surgical and endoscopic management of patients with pulmonary emphysema in thoracic division: Lessons learned

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Background: Unique radical treatment for pulmonary emphysema (PE) patients is lung transplantation (LT). There is insufficiency of donor organs in Russia. It forces to search additional ways in treatment of this group of patients.

Aims: To compare various methods of surgical and endoscopic management of PE patients.

Materials & Methods: 55 consecutive patients (1 woman), mean age 62±7 yo, with advanced PE were managed. Age 38-77 yo. They had mean FEV1 21±5%, FEV1/FVC 30±7%, dyspnoe 4,5 (MRC scale), TLC 138±18%, RV 294±87%, RV/TLC 70±8%, PaO2 69±13 mm hg and PaCO2 41±7 mm hg. Procedures included LVRS in 34 pts, bronchoscopic LVR in 6 pts, artery-venous fistulas in 10 pts, stem cells transplantation in 5 pts.

MONDAY, SEPTEMBER 20TH 2010

Results: We have no lethality. Patients after stem cells transplantation had no any improvement. 3 patients after artery-venous fistula noted mild reduction of dyspnoe. 30 patients after LVRS and 3 patients after BLVR have had increasing FEV₁% 38.6±3.8% and dyspnoe decreasing by 1-2 score. The effect of LVRS lasted for at least 3 years. Overall survival estimates at 1 and 3 years were 89% and 67%.

Conclusions: Patients with PE has most benefits from LVRS and BLVR, while artery-venous fistula and stem cell transplantation could not play any role in management. In our division LVRS and BLVR remains unique procedures capable to improve quality of a life of these patients and to allow them to wait transplantation of lungs.

P2770

Resection and plastic surgery of bronchial tubes

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Background: Management of malignant and benign diseases of tracheobronchial a tree by performance of plastic operations remains a challenge to thoracic surgery. Now similar operations are rare in view of the lack of indications.

Aims: To study results of bronchoplastic operations.

Materials and methods: Within 1963 to 2009 yy 552 operations on tracheobronchial tree were performed. Indications included bronchopulmonary cancer (n=200), benign tumours (n=115), a bronchial fistula after pneumonectomy (n=127), cicatricial stenoses and occlusion of bronchi (n=67), bronchoesophageal fistulas (n=43). We applied ten variants of a resection and plastics of bronchial tubes on right lung and eight on left lung, including complex polybronchial anastomosis. In some patients resection of segmental and subsegmentary bronchi without resections of a pulmonary tissue was performed thus both stumps of bronchi took in tightly. Transsternal transcricardial approach have give up the place back to transpleural transmediastinum approach in case of bronchial fistula.

Results: Smooth postoperative period was noted in 83,2%. Postoperative lethality rate was 6,9%. After the resection of the bronchial tube with lobectomy lethality was 5%. After closure of broncho esophageal fistula lethality rate was 16,3%. Closure of bronchial fistula after pneumonectomy have led to lethality in 13,4%.

Conclusions: The resection and plastic of bronchial tubes is ideal operation in case of malignant and benign tumours, allowing as much as possible to keep functionally high-grade pulmonary tissue. Such interventions remain operation of a choice in geriatric patients and patients with the limited respiratory reserves in case of lung cancer.

P2771

Coordination between the surgeon and anesthesiologist in the treatment of tracheal stenosis

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Background: Clinical situations and anatomic variants in postintubation and stomal stenosis of the trachea require different surgical and anesthetic approaches.

Aims: To determine optimal combination of surgical techniques and respiratory management in the treatment of tracheal stenosis (TS).

Methods: A review was performed of 80 patients with TS underwent surgical treatment during last 5 years. Circular resections were performed in 21 cases (9 with and 12 without existing tracheostomy), T tube placement in 8, and bougienage in 51. Traditional endotracheal ventilation and high-frequency jet ventilation (HFJV) were used according to surgical situation. Adequacy of ventilation was assessed.

Results: Traditional ventilation created optimal conditions for surgery when the tube could be passed distal to the lesion or inserted via the stoma. After dividing the trachea HFJV was started via catheter and anastomosis was performed. If the tube was placed before the stenosis and its diameter was too small for the catheter HFJV via the tube was of choice. We applied HFJV when T tube was placed. Bougienage required HFJV in every case. There were no any complications during operations. HFJV created excellent conditions for surgical manipulation and provided adequate gas exchange irrespectively of the length of the gap and duration of open airways period.

Conclusions: We found these combinations optimal for any situation in surgical treatment of TS. Findings obtained showed no difference in gas exchange level when both kinds of ventilation were employed in the same patient.

P2772

The result of surgical treatment of proximal long segment post intubation tracheal stenosis and the role of bilateral hyooid bone cutting with superahyooid release technique

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Introduction: Surgical resection is the method of choice in treatment of long

segment tracheal stenosis. The aim of this study is the result of surgical treatment of long segment post intubation tracheal stenosis and the role of bilateral hyooid bone cutting with supra hyooid release.

Material and methods: Between 2004 to 2008, 14 patients with proximal long segment tracheal stenosis with resection of more than 40% length of trachea, in Ghaem and Imam Reza hospital in Mashhad analyzed.

Results: 14 patients were analyzed, with M/F= 2.5, overage age (22.2±0.4 years). Etiology in all patients, were head trauma and prolonged intubation. Average time between surgery and first admission was 4.5±0.5 months. Average length of resected segment 4.3±0.5cm. Average increased length of tracheal was 1.1±0.3cm. Postoperative complications occurred in: one patient (7.1%) with wound infection, and 4 patients 28.4% with stenosis recurrence of that was treated in 3 patient, with multiple dilation and one patient needed, tracheostomy and T. tube. Quality of life 2 year after surgery in 71% had been in good group. We didn't have any mortality.

Conclusion: In surgical treatment of long segment proximal tracheal stenosis, we recommend extended supra hyooid releas technique with bilateral hyooid bone cutting.

Keywords: long segment tracheal stenosis – prolonged intubation – surgery – releasing technique

P2773

Thyroid carcinoma invading the trachea

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Airway invasion by thyroid carcinoma is an uncommon but important clinical problem. The surgical management of airway invasion is somewhat controversial, with some studies suggesting that conservative shave procedures might be adequate; however, the standardization and safety of techniques of airway resection and reconstruction have made en bloc surgery a reasonable approach for the management of such carcinomas.

We performed thyroidectomy and tracheal resection in 7 patients between January 2007 and December 2009. There were 3 nondifferentiated thyroid carcinomas (NDTC) and 4 well differentiated ones (WDTC). All patients were admitted in emergency with severe dyspnea. The bronchoscopic examination was very important to assess the exact involvement of the trachea and the CT scan was performed in order to eliminate the distant spread of malignancy. We performed en-bloc resection of the thyroid gland with 3 to 5 tracheal rings and in one case with the anterior part of the cricoid cartilage. Local limphadenectomy was performed in all cases.

There was no postoperative mortality. In one case (NDTC) we encountered an anastomotic fistula which required a definitive tracheostomy. The survival was 6, 9 and 14 month for the patients with NDTC, one case with WDTC lived for 13 month, the other three patients are alive and with no sign of local or distant disease at 9, 16 and 25 month after surgery.

Tracheal resection and reconstruction for thyroid carcinomas with airway invasion might provide long-lasting palliation and might even be curative in a significant number of patients suffering from this disease.

P2774

Isolated hemothorax following thoracic trauma: Analysis of 57 cases

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Aim: The aim of this study was to review cases with isolated hemothorax after thoracic trauma, to assess the diagnostic and treatment methods, and to discuss the determining factors of morbidity and mortality.

Material and methods: A total of 57 patients, of whom 7 were children, presenting to our hospital with isolated hemothorax between September 2004 and April 2007, were examined retrospectively. All patients underwent tube thoracostomy as the initial treatment approach. Emergency thoracostomy was performed on cases with continuing drainage from the chest tube, expanding hemothorax on the posteroanterior (PA) chest x-ray, and with hemodynamic instability.

Results: Of the cases, 44 (77.20%) were male and 13 (22.80%) were female. There were 7 (12.28%) children. The mean age was 39.08±16.66 years. Hemothorax occurred as a result of penetrating trauma in 31 (54.38%) and due to blunt trauma in 26 (45.61%) cases. Of the cases, 49 (85.96%) underwent tube thoracostomy drainage. All the 8 cases (14.03%) that underwent emergency thoracostomy had penetrating trauma. Mortality occurred in one patient (1.75%) who had penetrating trauma and who underwent emergency thoracostomy. The morbidity rate in patients with blunt trauma was significantly higher than those with penetrating trauma (p<0.0001)

Conclusion: Accurate diagnosis and appropriate surgical intervention in cases with traumatic hemothorax is essential for reducing the morbidity and mortality. The majority of cases can be treated with tube thoracostomy. Emergency thoracostomy is life-saving when indicated. The need for thoracostomy is higher in isolated hemothorax due to penetrating chest trauma

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P2775**A life saving approach after thoracic trauma: Emergency room thoracotomy**

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Objective: To determine the outcomes of resuscitative thoracotomy in emergency room in patients with cardiac and/or respiratory arrest after thoracic trauma.

Methods: Between January 2004 and February 2009, eight resuscitative thoracotomies were performed after thoracic trauma in emergency room. The records of the patients were evaluated retrospectively.

Results: The mean age of eight patients (5 male, 3 female) was 36,5 (range 19-53 years). The etiology was penetrating trauma in four patients, traffic accident in two patients, gunshot wound in one patient and falling down in one patient. In addition to thoracic trauma, two patients had cranial, two had abdominal and three had extremity pathology. Anterior thoracotomy in supine position was performed to all patients. The pathology was pulmonary parenchymal laceration in five patients. Intercostal vascular injury, cardiac laceration and descending aorta injury was determined in the other three patients, respectively. All patients with blunt trauma etiology and one patient with penetrating trauma etiology died intraoperatively. Three patients with penetrating trauma are hospitalized for 8 days meanly and discharged by cure. The overall mortality for blunt trauma was 100% and for penetrating trauma 25%.

Conclusion: The indications of resuscitative thoracotomy after thoracic trauma remain a source of controversy. In emergency room resuscitative thoracotomy should be performed to thoracic trauma cases in shock and unresponsive hypotension despite large volume fluid and blood replacement and have no time for transporting to the operating room. The results in patients with penetrating trauma are more successful than in patients with blunt trauma.