ERKAN YILDIRIM, MD, fetcs – Bazı Yayınlarımın "ABSTRAKTLARI"

1: J Cardiovasc Surg (Torino). 2007 Oct;48(5):673-4. Links

Cystic lymphangioma of the leg in a child with agenesis of testis.

Kocer B, Yildirim E, Kaplan T, Sakinci U.

PMID: 17989641 [PubMed - indexed for MEDLINE]

2: Interact Cardiovasc Thorac Surg. 2004 Mar;3(1):63-5. Links

Cystic lymphangioma: report of two atypical cases.

Yildirim E, Dural K, Kaplan T, Sakinci U.

Division of Thoracic Surgery, Ankara Numune Education and Research Hospital, Ankara, Turkey. erseyda@yahoo.com

Cystic lymphangioma is an uncommon congenital benign neoplasm, which frequently occurs to children and young adults and acquired form may be detected in middle-aged adults. Cystic lymphangioma usually appears in the neck, the axillary region, and the mediastinum. In the first case, cystic lymphangioma located in the posterior mediastinum extending over the vertebral column to the both hemi thoraces. In the second one, it was palpated on the posterior chest wall at the level of T6-8 vertebrae. In the view of literature, these cystic lymphangioma are accepted to be atypical because of their locations.

PMID: 17670177 [PubMed]

3: J Trauma. 2005 Jun;58(6):1252-8. Links

Protective effect of erythropoietin on type II pneumocyte cells after traumatic brain injury in rats.

Yildirim E, Ozisik K, Solaroglu I, Kaptanoglu E, Beskonakli E, Sargon MF, Kilinc K, Sakinci U.

Department of Thoracic Surgery, Ankara Numune Education and Research Hospital, Ankara, Turkey. erseyda@yahoo.com

BACKGROUND: The main objective was to evaluate the protective effect of erythropoietin on lung ultrastructure against damage in rats after traumatic brain injury. METHODS: We used forty Wistar-Albino female rats weighing 170-200 gr. The rats were allocated into five groups. The first group was the control and the second was the craniotomy without trauma. The third group was the trauma group. The fourth and fifth groups were erythropoietin (1000 IU/kg) and vehicle (0.4 mL/rat) groups, respectively. A weight-drop method was used for achieving head trauma. Samples were obtained from pulmonary lobes 24-hour post injury. Lipid peroxidation levels were determined and electron microscopic scoring model was used to reveal the ultrastructural changes. RESULTS: Ultrastructural evaluation revealed pathologic changes in the trauma group compared with the control group (p <

0.05). Lipid peroxidation levels were found to be higher in the trauma group ($p < 0.05$). Erythropoietin significantly reduced both the ultrastructural pathologic changes and the lipid peroxidation levels in the treatment group ($p < 0.05$). CONCLUSIONS: Erythropoietin protects the ultrastructure of pneumocyte type II cells against damage after traumatic brain injury.

PMID: 15995478 [PubMed - indexed for MEDLINE]

☐ **4:** Tuberk Toraks. 2005;53(1):57-61. Links

[Treatment in patients with low traumatic pneumothorax ratio.]

[Article in Turkish]

Dural K, Han S, Yildirim E, Koçer B, Kandemir M, Ozişik K, Sakinci U.

Thoracic Surgery, Ankara Numune Education and Research Hospital, Ankara, Turkey.

Thoracostomy tube placement (TT) is currently one of the most important treatment modalities used in traumatic pneumothorax patients. In patients with low pneumothorax ratio (percentage), both follow-up without surgery and employing intervention when indicated may be appropriate choice. We presented the outcome of patients with low traumatic pneumothorax ratio treated by follow up without surgical intervention in our clinic. During the period from January 2000 until January 2002, 108 patients who were treated and followed with low percentage traumatic pneumothorax in Ankara Numune Hospital Thoracic Surgery Clinic were allocated into three groups due to blunt trauma of the thorax, penetrating-cutting instrument injury and gunshot injury. All patients were admitted to the clinic with the purpose of observation without surgical intervention and chest roentgenograms were taken at the sixth and twelfth hours and daily thereafter. TT was performed for 46 (43%) patients whose pneumothorax ratio increased during the observation period. TT was more frequent in patients with 20% percentage pneumothorax (69%) as well as with two or more fractured ribs (69%). Follow-up without surgical intervention may one of the appropriate modes of treatment in patients who have minimal traumatic pneumothorax.

PMID: 15765288 [PubMed - indexed for MEDLINE]

☐ **5:** Eur J Cardiothorac Surg. 2005 Jan;27(1):19-22. Links

Rapid pleurodesis in symptomatic malignant pleural effusion.

Yildirim E, Dural K, Yazkan R, Zengin N, Yildirim D, Gunal N, Sakinci U.

Department of Thoracic Surgery, Ankara Numune Education and Research Hospital, Ankara, Turkey. erseyda@yahoo.com

OBJECTIVE: The objective of the study was to see whether a rapid method of pleurodesis was superior to the standard protocol in patients with symptomatic malignant pleural effusion. METHODS: Between January 2000 and February 2003, a prospective randomised trial was carried out in a sequential sample of 27 patients with malignant pleural effusions documented cytopathologically. Twelve patients were allocated to group 1 (standard protocol) and 15 to group 2 (new protocol). A small-bore catheter (12 Fr) and oxytetracycline (35 mg/kg of body weight) were used in both groups. In group 1, patients had drainage until radiological evidence of lung re-expansion was obtained and the amount of fluid drained was less than 150 ml/day, before oxytetracycline was instilled. The catheter was removed when the amount of fluid drained after instillation was less than 150 ml/day. In

group 2, patients had the oxytetracycline instilled in a fractionated-dose manner following frequent aspirations at 6h intervals. The catheter was removed when the total amount of fluid drained after instillation of the oxytetracycline [OT] was less than 150 ml/last three aspirations. Response was evaluated at 1, 3 and 6 months after pleurodesis. RESULTS: There was no statistically significant difference in the demographic features, site of the primary tumour, disease characteristics, and response rates in any evaluation period in both groups (P>0.05). However, the number of days of drainage and hospitalisation, and the cost were significantly lower in the second group (P<0.001). CONCLUSIONS: This new pleurodesis method provided shorter hospital stay resulting in superior cost-effectiveness and palliation without sacrificing the efficacy of pleurodesis.

PMID: 15621465 [PubMed - indexed for MEDLINE]

☐ **6:** J Heart Lung Transplant. 2004 Dec;23(12):1423-9. Links

Ultrastructural changes in tracheobronchial epithelia following experimental traumatic brain injury in rats: protective effect of erythropoietin.

Yildirim E, Solaroglu I, Okutan O, Ozisik K, Kaptanoglu E, Sargon MF, Sakinci U.

Department of Thoracic Surgery, Ankara Numune Education and Research Hospital, Ankara, Turkey. erseyda@yahoo.com

BACKGROUND: We aimed to demonstrate the time dependent ultrastructural changes in tracheobronchial epithelia after traumatic brain injury. And also, protective effect of erythropoietin was demonstrated. METHODS: We used 56 Wistar-Albino female rats weighing 170 to 200 g. The rats were allocated into 7 groups. First group was the control. The second underwent craniotomy without trauma. The third, fourth, and fifth groups were respectively 2-, 8-, and 24-hour trauma groups. The sixth and seventh groups were respectively treatment (erythropoietin, 1,000 IU/kg) and vehicle (0, 4 ml/rat) groups. Weight-drop method was used for achieving head trauma. Samples were obtained from both trachea and main bronchi. Modified electron microscopic scoring model was used to reveal the ultrastructural changes in both trauma and treatment groups. RESULTS: There was no statistical difference between control and sham groups (p >0.05). Scores of all trauma groups were significantly different from the controls (p <0.05). Trauma produced obvious gradual damage on ultrastructure of the tracheobronchial epithelia. Erythropoietin decreased tracheobronchial scores after traumatic brain injury in significant levels. Erythropoietin attenuated ultrastructural scores for each organelle in significant levels (p <0.05 for each organelle). CONCLUSIONS: The data suggested that ultrastructural damage is obvious at 2 hours deteriorating with time. Erythropoietin protects epithelia against damage after traumatic brain injury. Pharmaceutical lung preservation may help gaining efficacious donor lungs in brain death. But, further time dependent experiments are needed to determine the liability of the donor lung after traumatic brain injury. This fact is to be known for achieving higher graft survival rates.

PMID: 15607673 [PubMed - indexed for MEDLINE]

☐ **7:** J Cardiovasc Surg (Torino). 2004 Feb;45(1):85-6. Links

Hydatid disease of a rib in a rare location.

Han S, Yildirim E, Dural K, Baldemir M, Sakinci U.

PMID: 15041945 [PubMed - indexed for MEDLINE]

8: Eur J Cardiothorac Surg. 2004 Apr;25(4):523-9. Links

Ultrastructural changes in pneumocyte type II cells following traumatic brain injury in rats.

Yildirim E, Kaptanoglu E, Ozisik K, Beskonakli E, Okutan O, Sargon MF, Kilinc K, Sakinci U.

Department of Thoracic Surgery, Ankara Numune Education and Research Hospital, Ankara, Turkey. erseyda@yahoo.com

OBJECTIVE: We aimed to demonstrate the time-dependent ultrastructural changes in pneumocyte type II cells following brain injury, and to propose an electron microscopic scoring model for the damage. METHODS: Forty Wistar-Albino female rats weighing 170-200 g were used. The rats were allocated into five groups. The first group was the control and the second was the craniotomy without trauma. The others were trauma groups. Weight-drop method was used for achieving head trauma. Samples were obtained from the right and left pulmonary lobes at 2-, 8-, and 24-h intervals after transcardiac perfusion. An electron microscopic scoring model was used to reveal the changes. RESULTS: There were no ultrastructural pathological findings pointing to lung injury in any rat of the control groups. There was intense intracellular oedema in type II pneumocyte and interstitial oedema in the adjacent tissue in trauma groups. Oedema in mitochondria and dilatation in both smooth endoplasmic reticulum and Golgi apparatus was more evident in the 8- and 24-h trauma groups. The chromatin dispersion was disintegrated in the nucleus in all trauma groups. Scores of all trauma groups were significantly different from the controls ($P<0.05$). All trauma groups were different from each other at significant levels ($P<0.05$ for each trauma groups). CONCLUSIONS: The data suggested that ultrastructural damage is obvious at 2 h and deteriorates with time. The electron microscopic scoring model worked well in depicting the traumatic changes, which were supported by lipid peroxidation. Further experiments are needed to determine the exact outcome after brain death model.

PMID: 15037266 [PubMed - indexed for MEDLINE]

9: J Trauma. 2003 Sep;55(3):485-8. Links

Pseudoaneurysms of the popliteal and tibioperoneal arteries after gunshot injuries.

Ozisik K, Dural K, Okcu O, Han S, Yildirim E, Sakinci U.

Department of Thoracic and Cardiovascular Surgery Department, Ankara Numume Education and Research Hospital, Ankara, Turkey. kozisik@hotmail.com

BACKGROUND: Pseudoaneurysms (PsAns) of the popliteal and tibioperoneal arteries are very rare and occur as a late complication after arterial injury. This study was undertaken to describe the management of PsAns of the popliteal and tibioperoneal arteries after gunshot injuries in a civilian vascular surgical unit with a large trauma workload. METHODS: A retrospective review of the records of nine patients treated between January 1998 and November 2001 at the Thoracic and Cardiovascular Surgery Department of Numune Education and Research Hospital was undertaken. RESULTS: Nine PsAns of the popliteal and tibioperoneal arteries after gunshot injuries were treated. The delay in diagnosis from the time of injury ranged from 15 days to 14 months, with a median delay of 75 days. One case with graft occlusion was noticed in a patient with a popliteal artery PsAn. In these cases, the early and late patency rate and limb salvage were 100%. CONCLUSION: Early diagnosis of popliteal and tibioperoneal PsAns is an important factor in successful surgical reconstruction. The operative procedures will be simple if the interval between injury and operation is short, and surgical treatment for PsAns includes reconstruction of both arterial and venous arteries.

PMID: 14501891 [PubMed - indexed for MEDLINE]

10: Eur J Cardiothorac Surg. 2003 Sep;24(3):428-33. ELSEVIER FULL-TEXT ARTICLE Links

Transaxillary approach in thoracic outlet syndrome: the importance of resection of the first-rib.

Han S, Yildirim E, Dural K, Ozisik K, Yazkan R, Sakinci U.

Ankara Numune Education and Research Hospital, Thoracic Surgery Department, Ankara, Turkey. serdarhan1@yahoo.com

OBJECTIVE: The aim of this study was to analyze the transaxillary surgical approach and results of thoracic outlet cases in our clinic in the light of the recent literature data. METHODS: Between 1996 and 2002 a series of 35 cases diagnosed as thoracic outlet syndrome (TOS) hospitalized and surgically treated in our clinic have been studied retrospectively. RESULTS: Twenty-six of our cases were females (75%) and the mean age was 25+/-1 (17-40 years). The most important symptom was localized pain in the arm. In 90% of the cases the Adson, hyperabduction and abduction external rotation (AER) tests were positive. There was paresthesia in 30 cases (85%), atrophy in 3 cases (10%), and cyanosis in 6 cases (20%). Preoperative electromyogram (EMG) was demonstrated as 56.7 m/s (50-65) and postoperative EMG was demonstrated as 65.1 m/s (60-71). Postoperative EMG values were significantly higher than the preoperative EMG values ($p<0.001$). All patients were operated using the transaxillary approach. A total number of 40 operations were performed. Upon radiological investigation (n=17) 50% of the patients were found to have cervical ribs. In 30 cases (85%) the results were very good and in four cases (12%) good, and in one case (3%) the results were bad. There was no recurrence and reoperation in the long term follow-up. CONCLUSION: Careful patient history and physical examination should be done by a team, which consists of thoracic surgeon, physical therapy specialist, and a neurologist. Total resection of the first-rib with periosteally should be preferred in all of these cases with accompanying pathologies such as cervical rib, fibrous ligaments, and scalenius muscles. The transaxillary approach has provided a good exposure for the resection of cervical ribs, the first-rib and excision of fibrous ligaments and scalenius muscle by a perfect cosmetic result. All the patients should be encouraged for 2 months of physical exercises starting from early postoperative period.

PMID: 12965316 [PubMed - indexed for MEDLINE]

11: J Cardiovasc Surg (Torino). 2003 Apr;44(2):293-4. Links

Gastrothoracic wall fistula due to a stab wound. A very rare case report.

Yildirim E, Han S, Dural K, Yazkan R, Kaplan T, Sakinci U.

PMID: 12813406 [PubMed - indexed for MEDLINE]

12: J Cardiovasc Surg (Torino). 2003 Apr;44(2):291-2. Links

A case report of a pleural synovial sarcoma misdiagnosed as cyst hydatidosis.

Yildirim E, Dural K, Han S, Koç K, Gulay Ulaşan N, Sakinci U.

PMID: 12813405 [PubMed - indexed for MEDLINE]

13: J Cardiovasc Surg (Torino). 2003 Apr;44(2):289-90. Links

An intracavitary aspergilloma after echinococcal cystectomy.

Ulaşan NG, Dural K, Yildirim E, Ozisik K, Sakinci U.

PMID: 12813404 [PubMed - indexed for MEDLINE]

14: J Cardiovasc Surg (Torino). 2003 Feb;44(1):125-9. Links

The importance of the time interval between diagnosis and operation in myasthenia gravis patients.

Dural K, Yildirim E, Han S, Ozişik K, Ulaşan N, Saygin H, Sakinci U.

Department of Thoracic Surgery, Ankara Numune Education and Research Hospital Ankara, Turkey. koraydural@yahoo.com

AIM: Complete remission rates in patients with myasthenia gravis (MG) using anticholine esterases, immunosuppressive drugs, and medical therapy methods like plasmapheresis are low. Because high levels of complete remission and advantages are reported after thymectomy this surgical method is widely used in patients with MG. METHODS: The preoperative status and the responses to thymectomy have been studied in 15 patients who had been diagnosed as MG and underwent thymectomy in Ankara Numune Education and Research Hospital. RESULTS: Patients who underwent thymectomy have shown a high proportion of clinical improvement (73%). We could not establish a direct relationship between the results and the patients' age, sex features and the pathological characteristics of the excisional biopsy specimens. The benefit rates for patients who had a short period of time between diagnosis and operation (87.5%) were higher (91%). CONCLUSIONS: Thymectomy because of its high benefit rate is an advantageous therapeutic tool. The chance of benefiting from thymectomy increases when the history of MG is short and the stage of the disease is early.

PMID: 12627084 [PubMed - indexed for MEDLINE]

15: Eur J Cardiothorac Surg. 2002 Jul;22(1):147. ELSEVIER FULL-TEXT ARTICLE Links

Giant chondrosarcoma and multiple hereditary exostoses: a very rare case report.

Sakinci U, Yildirim E, Dural K, Han S.

Department of Chest Surgery, Ankara Numune Education and Research Hospital, Ankara, Turkey.

PMID: 12103392 [PubMed - indexed for MEDLINE]

16: Transplant Proc. 2006 Nov;38(9):2784-7. ELSEVIER FULL-TEXT ARTICLE Links

Expression of antiapoptotic survivin and aven genes in rat heart tissue after traumatic brain injury.

Ozisik K, Ozisik P, Yildirim E, Misirlioglu M, Tuncer S.

Ankara Numune Education and Research Hospital, Ankara, Turkey. sozisik2002@yahoo.com

We have recently shown that experimental traumatic brain injury (TBI) results in ultrastructural damage in heart tissue. The aim of this study was to determine the two antiapoptotic signals "survivin" and "aven" in rat heart tissue following TBI, and comparing the effects of erythropoietin (EPO) and methylprednisolone (MPS). Thirty-six Wistar-Albino female rats weighing 190 to 230 g were randomly allocated into six groups: group 1 underwent head trauma with no treatment; group 2 and group 3, head trauma and intraperitoneally delivered EPO (1000 IU/kg) and MPS (30 mg/kg), respectively; group 4 (vehicle), head trauma and intraperitoneal albumin (0.4 mL/rat); groups 5 and 6, control and sham-operated groups, respectively. Three-hundred g-cm impact trauma was produced by the method of weight-drop. Real-time quantitative polymerase chain reactions were used to estimate survivin and aven gene expression at the total RNA level. Both survivin and aven were higher among the treatment than the trauma group (P = .0006, .0001 and P = .0038, .0033, respectively). Comparing survivin and aven between EPO and MPS treatment groups showed no significance (P = .3027, .2171, respectively). Also, both survivin and aven were significantly higher among the treatment than the vehicle, the control, or the sham-operated groups. These findings suggested that both EPO and MPS may play important roles in the expression of antiapoptotic survivin and aven genes in heart tissue after TBI.

PMID: 17112829 [PubMed - indexed for MEDLINE]

☐17: Heart Lung Circ. 2006 Apr;15(2):124-9. Epub 2006 Feb 21. ELSEVIER FULL-TEXT ARTICLE Links

Apoptosis-related gene bcl-2 in lung tissue after experimental traumatic brain injury in rats.

Yildirim E, Ozisik K, Ozisik P, Emir M, Yildirim E, Misirlioglu M, Tuncer S, Kilinc K.

Thoracic Division, Ankara Numune Teaching and Research Hospital, Ankara, Turkey. erseyda@yahoo.com

BACKGROUND: We have recently shown that experimental traumatic brain injury resulted in ultra structural damage in lung tissue. The main objective of the current study was to investigate in a rat model of brain injury whether expression of Bcl-2 gene and lipid peroxidation levels in the lung tissue after traumatic brain injury were affected by methylprednisolone sodium succinate (MPSS) treatment. METHODS: Fifty-six Wistar-Albino female rats weighing 180-220 g were used, which were allocated into seven groups. A weight-drop method was used to achieve head trauma. Real time quantitative PCR analyses for Bcl-2 gene expression and measurement of the levels of lipid peroxidation were carried out. All the data was analyzed by using SPSS 11.5 for Windows. RESULTS: Mean Bcl-2 expression in the methylprednisolone group was considerably higher compared to that of all the other groups ($p<.05$). Mean lipid peroxidation levels were significantly higher in the trauma group and notably lower in the methylprednisolone group ($p<.01$). CONCLUSIONS: The oxidative stress imposed on lung tissue, as seen by high levels of lipid peroxidation, after brain injury was significantly attenuated by MPSS treatment. MPSS treatment following brain injury also augmented putative anti-apoptotic Bcl-2 gene expression in lung tissue. Further studies are required to determine the full range and lower limits of effective MPSS dose. More importantly the optimal efficacy according to the timing of MPSS treatment after brain injury needs to be determined for impact on more diverse markers of cell inflammation, apoptosis and injury.

PMID: 16490400 [PubMed - indexed for MEDLINE]

18: Tohoku J Exp Med. 2005 Oct;207(2):119-24. Links

Beneficial effect of methylprednisolone on cardiac myocytes in a rat model of severe brain injury.

Emir M, Ozisik K, Cagli K, Ozisik P, Tuncer S, Bakuy V, Yildirim E, Kilinc K, Gol K.

Department of Cardiovascular Surgery, TYIH, Ankara, Turkey.

Cardiac injury, occurred after traumatic brain injury (TBI), has been recognized for more than a century. Bcl-2 is a key regulatory component of the mitochondrial cell death pathway, and its overexpression is cytoprotective in many cell types. The therapeutic agents, which induce the expression of bcl-2 protein, might provide a new therapy to prevent cardiac myocyte damage following TBI. In this study, we investigated whether methylprednisolone sodium succinate (MPSS) influences the expression of bcl-2 in the heart. Wistar-Albino female rats underwent TBI (300 g/cm) generated by the weight-drop method, and were left untreated (n = 6) or treated with either MPSS (30 mg/kg) (n = 6) or vehicle (albumin solution) (n = 6). The heart was isolated from each animal with TBI. For comparison, the hearts were isolated from sham-operated (n = 6) and control rats (n = 6). The relative expression of bcl-2 mRNA in the heart was quantitated by real-time polymerase chain reaction. We also assessed lipid peroxidation in the heart tissue by determining the concentration of thiobarbituric acid-reactive substances (TBARs) as an indicator of tissue damage. The bcl-2 expression level was significantly higher in the hearts of MPSS-treated rats compared to that of other TBI groups ($p < 0.0001$). Moreover, TBI increased the lipid peroxidation in the heart, which was significantly reduced by the treatment with MPSS ($p < 0.0001$). These findings provide evidence for the efficacy of MPSS in protection of cardiac myocytes to achieve optimal heart donation after TBI in heart transplantation.

PMID: 16141680 [PubMed - indexed for MEDLINE]

19: Transplant Proc. 2004 Dec;36(10):2935-8. Links

Effect of erythropoietin on bcl-2 gene expression in rat cardiac myocytes after traumatic brain injury.

Emir M, Ozisik K, Cagli K, Misirlioglu M, Ozisik P, Iscan Z, Yildirim E, Kilinc K, Sener E.

Department of Cardiovascular Surgery, TYIH, Ankara, Turkey.

The purpose of this study was to investigate whether erythropoietin (EPO) has an effect on the expression of bcl-2 in rat cardiac myocytes following experimental isolated traumatic brain injury (TBI). Forty-eight Wistar-Albino female rats were randomly allocated into eight groups. Groups AC and BC were controls; groups AS and BS were sham-operated animals. Groups A1 and B1 underwent head trauma without treatment. Groups A2 and B2, head traumas plus EPO intraperitoneally (1000 IU/kg); groups A3 and B3, the vehicle groups, head traumas and intraperitoneal albumin (0.4 ml/rat). The method of weight drop was used to produce impact trauma at 24 hours after injury. Samples obtained from the left ventricle were assayed for lipid peroxidation and bcl-2 gene expression using real-time quantitative polymerase chain reactions. Lipid peroxidation in the heart tissue was determined by the concentration of thiobarbituric acid reactive substances (TBARs). The results showed that administration of EPO significantly reduced the increase in lipid peroxidation by-products after moderate or severe trauma. The bcl-2 expression was significantly higher in EPO (A2 and B2) compared to trauma groups (A1 and B1) suggesting a protective effect. These findings suggest that EPO may play an important role in the expression of bcl-2 and decrease in TBARs-the end product of lipid peroxidation in myocytes-after moderate or severe TBI.

PMID: 15686664 [PubMed - indexed for MEDLINE]

20: Am J Transplant. 2004 Jun;4(6):900-4. Links

Ultrastructural changes of rat cardiac myocytes in a time-dependent manner after traumatic brain injury.

Ozisik K, Yildirim E, Kaplan S, Solaroglu I, Sargon MF, Kilinc K.

Department of Thoracic and Cardiovascular Surgery, Ankara Numune Education and Research Hospital, Ankara, Turkey. sozisik2002@yahoo.com

We suggest an ultrastructural scoring system to evaluate the degree of damage in a time-dependent manner in cardiac myocytes after traumatic brain injury (TBI). Forty Wistar-Albino female rats weighing 170-200 g were randomly allocated into five groups. Group 1 was the control and Group 2 was the sham-operated group. Group 3, Group 4 and Group 5 were trauma groups. Weight-drop technique was used for achieving TBI. Lipid peroxidation was estimated by thiobarbituric acid test. An electron microscopic scoring model was used to grade the subcellular changes. Results of heart injury score (HIS) showed that the 24-h trauma group had statistically significant levels in nuclear damage compared with the other groups ($p < 0.05$). Sarcoplasmic reticulum and mitochondria scores of all trauma groups were significantly different from the control and sham groups ($p < 0.05$). The results showed that lipid per oxidation levels were statistically significant different between the control and all trauma groups ($p < 0.05$). The electron microscopic scoring model worked well in depicting the traumatic changes, which were supported by lipid peroxidation levels. Traumatic brain injury produced obvious gradual damage on the ultrastructure of the cardiac myocytes and this damage was more significant in the 24-h trauma group.

PMID: 15147423 [PubMed - indexed for MEDLINE]

21: Exp Oncol. 2006 Jun;28(2):169-71. Links

Matrix metalloproteinase-9 in broncho-alveolar lavage fluid of patients with non-small cell lung cancer.

Bugdayci G, Kaplan T, Sezer S, Turhan T, Koca Y, Kocer B, Yildirim E.

Department of Biochemistry, Izzet Baysal School of Medicine, Abant Izzet Baysal University, Bolu, Turkey. gbugdayci@gmail.com

AIM: To evaluate concentration of MMP-9 in blood plasma and broncho-alveolar lavage fluid (BALF) from patients with non-small cell lung cancer (NSCLC). METHODS: Blood plasma from 40 NSCLC patients and 40 healthy donors was collected and concentrations of blood plasma and BALF MMP-9 were measured using ELISA. Correlation between MMP-9 level and gender, histological type of tumor and stage of disease was analyzed. RESULTS: Levels of blood plasma MMP-9 were significantly higher in NSCLC patients ($p < 0.0001$) then in control group, and were especially high in patients with stage IV of disease (stage I vs stage IV - $p < 0.005$, stage II vs stage IV - $p < 0.01$, stage III vs stage IV - $p < 0.01$). Also, stage IV of NSCLC was characterized by the highest level of BALF MMP-9 (stage I vs stage IV - $p < 0.002$, stage II vs stage IV $p < 0.002$, and stage III vs stage IV $p < 0.007$). Correlation between blood plasma and BALF MMP-9 levels and gender or histological type of tumor was insignificant. CONCLUSION: Our data revealed significant correlation between tumor stage and BALF and plasma MMP-9 levels in NSCLC patients.

PMID: 16837913 [PubMed - indexed for MEDLINE]

22: J Cardiovasc Surg (Torino). 2003 Oct;44(5):677-8. Links

Pulmonary mature teratoma. Primary? Or metastatic?

Han S, Yildirim E, Dural K, Kaplan T.

PMID: 14735060 [PubMed - indexed for MEDLINE]

23: Proc Am Thorac Soc. 2009 Jan 15;6(1):66-78. Full Text FREE Proc Am Thorac Soc Links

Surgical techniques: lung transplant and lung volume reduction.

Boasquevisque CH, Yildirim E, Waddel TK, Keshavjee S.

Lung Transplant Program, Department of Surgery, Toronto General Hospital, University of Toronto, Toronto, Ontario, Canada.

Patients with end-stage emphysema can be offered lung volume reduction surgery (LVRS), lung transplantation, or unilateral lung transplantation combined with contralateral LVRS if necessary, depending on multiple factors including age, lung function parameters, lobar predominance, and whether the disease is uni- or bilateral. Lung transplant is a complex and well-established therapeutic modality for patients with end-stage lung disease. The ideal candidate for LVRS is a patient with severe upper-lobe predominant emphysema and markedly impaired exercise capacity. Other groups may benefit from the procedure, but results are likely to be less good. The objective of this chapter is to describe the surgical techniques of bilateral lung transplantation and lung volume reduction surgery as performed at the University of Toronto.

PMID: 19131532 [PubMed - indexed for MEDLINE]