**VBP – Lungekreft postoperativ**

**Enkelt studier**

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| Ruoyu Z, Dippon J, Friedel G. **Refined risk stratification for thoracoscopic lobectomy or segmentectomy.** J Thorac Dis. 2019;11(1):222-30.  <http://dx.doi.org/10.21037/jtd.2018.12.44>  Background: Given the wide adoption of thoracoscopic lobectomy and positive effect of the thoracoscopic approach for improving postoperative outcomes, questions have arisen regarding the validity of previously published risk assessment models. We sought to review the reliability of the established predictors for patients undergoing thoracoscopic lobectomy. Methods: From January 2009 to May 2017, 606 patients (275 women, 331 men; median age 67 years) underwent thoracoscopic lobectomy or segmentectomy for confirmed or suspected early-stage lung cancer or metastasis at our institution. Logistic regression analyses were performed to determine the predictors of postoperative complications, followed by assessments of causal inference. Results: The postoperative mortality, pulmonary complication, cardiovascular complication and overall morbidity rates were 1.0%, 8.9%, 5.8% and 18.0%, respectively. While the American Society of Anesthesiologists physical status (ASA-PS) emerged as an independent morbidity predictor, only a slightly significant association between lung function determinants and overall morbidity was found in the univariable regression analyses. Regarding causal inference, inverse probability of treatment weighting using propensity scores revealed 2- and 1.7-fold increases in the odds of cardiopulmonary complications and overall morbidity in patients with ASA-PS grade 3 or 4 compared with those with ASA-PS grade 1 or 2 (OR =2.116, 95% CI: 1.252-3.577, P=0.005; OR =1.740, 95% CI: 1.095-2.765, P=0.019, respectively). Conclusions: Our results suggested that the current physiologic evaluation algorithm is also applicable to major lung resection via thoracoscopic approach. ASA-PS is an easily assessable factor capable of predicting major complications following thoracoscopic lobectomy in patients properly selected in compliance with the current guideline. It is recommended to incorporate the ASA-PS into the existing algorithm for more accurate risk stratification in this patient population.  Fu R, Zhang JT, Dong S, Chen Y, Zhang C, Tang WF, et al. **Drainage tube hole suture improvement: Removal‐free stitches**. Thoracic Cancer. 2019;10(9):1827-33.  <http://dx.doi.org/10.1111/1759-7714.13157>  Surgical method improvements aim to optimize the patient experience. The problem of healing of the drainage tube hole has not received attention and is of concern because it can plague patient recovery. In this article we report on how we have improved the method of suturing the drainage tube hole and explore the safety and effectiveness of this method. Between December 2017 to August 2018, 102 patients underwent thoracoscopic lung resection (single port or single utility port) using different methods of suturing drainage tube holes. The intervention group received improved methods with subcuticular and intradermal suture and removal‐free stitches, whilst the control group received a conventional mattress suture and fixed chest tube. A preset line was left to tie knots and close the hole after the removal of the chest tube. The stitches were removed 7–12 days after surgery. The baseline clinical features of the patients were subsequently analyzed. The objective and subjective conditions of scars were evaluated using the Vancouver Scar Scale (VSS) and the Patient and Observer Scar Assessment Scale (POSAS) at one month after surgery. The intervention group (n = 71) and control group (n = 31) had balanced baseline clinical characteristics. There were no significant differences between the two groups in terms of three‐day postoperative pain and postoperative hospital stay. In the intervention group, three patients (4.23%) had wound splitting that required re‐suturing, which was better than five patients (16.13%) in the control group (P < 0.05). The incidence of pleural fluid outflow, wound infection, post‐removal pneumothorax, chest tube prolapse and incisional hernia were not different between the two groups. We conclude that the objective and subjective evaluation results of scars were significantly different between the two groups (P < 0.05), and the experimental group was superior to the control group. A balanced result between aesthetic appearance and safety as regards video‐assisted thoracic surgery can be achieved through the chest tube hole improved suture method. This method also improves the patient's recovery experience.  Qiang BAI, Chunquan LIU, Yong CUI. **Retrospective Analysis of Single Closed Chest Drainage in Superior Lobectomy of Lung Cancer**. Chinese Journal of Lung Cancer. 2019;22(3):157-60. <http://dx.doi.org/10.3779/j.issn.1009-3419.2019.03.07>  Background and objective There is no consensus on one or two chest drains closed chest drainage in superior lobectomy of lung cancer and mediastinal lymph node dissection. This study investigated the postoperative complications about drainage and evaluated the effectiveness. Methods We retrospectively reviewed the clinical data of patients with single closed chest drainage in superior lobectomy of lung cancer and mediastinal lymph node dissection of Beijing Friendship Hospital between April 2012 and May 2017, and evaluated the effectiveness. Results From the available data of 301 patients, the complication rate after superior lobectomy was 9.3%, and the complication rate of drainage after superior lobectomy was 5.64%. Conclusion The effectiveness of drainage of single closed chest drainage in superior lobectomy of lung cancer and mediastinal lymph node dissection is no less than double drainage.  Karapınar K, Kocatürk Cİ. **The Effectiveness of Sterile Wound Drapes in the Prevention of Surgical Site Infection in Thoracic Surgery**. BioMed Research International. 2019:1-6. <http://dx.doi.org/10.1155/2019/1438793>  Background. The rate of surgical site infections (SSIs) has decreased in parallel to advances in sterilization techniques. Such infections increase morbidity and hospitalization costs. The use of iodine-impregnated sterile wound drapes (SWDs) is recommended to prevent or reduce the incidence of these infections. However, there is a paucity of data regarding their use in thoracic surgical procedures. The aim of the present study was to evaluate the effectiveness of sterile wound drapes in the prevention of these infections and the effects on hospitalization costs. Methods. Perioperative iodine-impregnated SWDs have been used since January 2015 in the Thoracic Surgery Clinic of our hospital. A retrospective evaluation was made of patients who underwent anatomic pulmonary resection via thoracotomy with SWD in the period January 2015–2017, compared with a control group who underwent the same surgery without SWD in the 2-year period before January 2015. Factors that may have increased the risk of surgical site infection were documented and the occurrence of SSI was recorded from postoperative follow-up data. The cost analysis was performed as an important criterion to investigate the benefits of SWD. Results. Evaluation was made of 654 patients in the study group (n:380) using SWD, the operation time was significantly longer, and perioperative blood transfusion was significantly higher, whereas treatment costs (p=0.0001) and wound culture positivity (p=0.004) were significantly lower and less surgical wound debridement was performed (p=0.002). Conclusion. The findings suggest that the use of sterile wound draping in thoracic surgery procedures reduces surgical site infections and hospitalization costs.  Shuichi S, Kenichi K, Chinatsu K, Takamitsu O, Masaki M, Makoto N, et al. **Long-term impact of complications after lung resections in non-small cell lung cancer.** J Thorac Dis. 2019;11(5):2024-33.  <http://dx.doi.org/10.21037/jtd.2019.04.91>  Background: Postoperative complications after lung resection are common and fatal. The immediate effects of postoperative complications are related to poor prognosis; however, the long-term effects have not been assessed. Thus, this investigation aimed to clarify the long-term effects of postoperative complications among patients with resected non-small cell lung cancer (NSCLC). Methods: This retrospective cohort study included 345 patients with resected NSCLC from a single institution. We used the Clavien-Dindo classification to classify postoperative complications. Postoperative complications were defined as complications with a Clavien-Dindo grade of ≥2. The Kaplan-Meier method was used to evaluate survival. Prognostic factors were analyzed using a Cox proportional hazard model. Results: There were 110 patients with postoperative complications (31.9%). The 5-year overall survival (OS), recurrence-free survival (RFS), and cause-specific survival (CSS) rates were significantly lower in patients with complications than in those without complications [OS: 66.1%, 95% confidence interval (CI): 55.4-74.8% vs. 78.0%, 95% CI: 71.8-83.1%, P=0.001; RFS: 48.8%, 95% CI: 38.1-58.7% vs. 70.8%, 95% CI: 64.2--76.4%, P<0.001; CSS: 82.7%, 95% CI: 72.8-89.3% vs. 88.2%, 95% CI: 82.8-92.0%, P=0.005]. The 5-year OS was lower in the pulmonary complication group than in the other complication group (58.1%, 95% CI: 40.0-72.4% vs. 70.5%, 95% CI: 56.6-80.6%, P=0.033). Postoperative complications were indicated as a poor prognostic factor for OS (hazard ratio, 1.67; 95% CI: 1.11-2.53; P=0.002). Conclusions: Postoperative complications were associated with unfavorable OS because of the worse prognosis of postoperative pulmonary complications.  Kadiri SB, Kerr AP, Oswald NK, Budacan A-M, Flanagan S, Golby C, et al. **Fit 4 surgery, a bespoke app with biofeedback delivers rehabilitation at home before and after elective lung resection**. J Cardiothorac Surg. 2019;14(1):N.PAG-N.PAG.  <http://dx.doi.org/10.1186/s13019-019-0951-6>  Background: Pulmonary rehabilitation programme for lung surgery patients can reduce the risk of post-operative complications but compliance to programmes can be limited by access to health care. We developed a home-based rehabilitation app and tested its feasibility in patients undergoing lung resection surgery.Methods: A cohort study was conducted over 18 months at a regional thoracic unit. The Fit 4 Surgery app included ten exercises. Patients were instructed to exercise for at least three minutes for each exercise. Data was transmitted back to the researchers remotely. Data was also collected from a contemporaneous group of surgery patients who attended local outpatient-based Chronic Obstructive Pulmonary Disease rehabilitation classes. Quality of Life and outcomes data in the app group were collected. Patients were also interviewed about their experience of the app.Results: App patients had a shorter wait before surgery compared to patients attending rehabilitation classes (24 vs 45 days) but managed four times as many sessions (2 vs 9), improving incremental shuttle walk test distance by 99 ± 83 (p < 0.05) metres before surgery. Five themes were gathered from the interviews.Conclusion: An app based programme of rehabilitation can be delivered in a timely fashion to lung surgery patients with demonstrable physiological benefits; this will need to be confirmed in further clinical trials.Clinical Trial Registration Number: ISRCTN00061628. Registered 27 May 2011.  Duk Hwan M, Jinyoung P, Du-Young K, Hye Sun L, Sungsoo L. **Intramuscular stimulation as a novel alternative method of pain management after thoracic surgery**. J Thorac Dis. 2019;11(4):1528-35.  <http://dx.doi.org/10.21037/jtd.2019.03.24>  Background: The purpose of this study was to determine whether electrical twitch-obtaining intramuscular stimulation (ETOIMS) can be an alternative to intravenous patient-controlled analgesia (IV-PCA) for postoperative pain management in pneumothorax patients undergoing single-port video-assisted thoracoscopic surgery (VATS). Methods: This preliminary prospective randomized study was conducted between March 2017 and July 2017. A total of 26 patients undergoing single-port VATS were randomly assigned to two groups: the ETOIMS group (n=12), which received intramuscular stimulation prior to chest tube insertion toward the end of procedure, and the IV-PCA group (n=14), which received continuous infusion of fentanyl with a basal rate of 10 µg/mL/h. To measure postoperative pain, visual analogue scale (VAS; range, 0-10) was used as the primary endpoint. Results: Baseline characteristics were not different between the two groups. According to the linear mixed model, there was statistical difference in the serial VAS score between the two groups (P=0.007). The ETOIMS group showed a significantly lower VAS score compared with the IV-PCA group, especially at postoperatively hour 8, day 1, and day 2. Conclusions: We showed that ETOIMS may be a safe, effective, and simple alternative for pain management after single-port VATS.  Julliard W, Krupnick AS. **Improving pain after video-assisted thoracoscopic lobectomy--advantages of a wound retractor camera port**. J Thorac Dis. 2019;11(2):341-4. <http://dx.doi.org/10.21037/jtd.2018.11.42>  Bowman JA, Utter GH. **Electronic chest tube drainage devices and low suction following video-assisted thoracoscopic pulmonary lobectomy**. J Thorac Dis. 2019;11(5):1738-41.  <http://dx.doi.org/10.21037/jtd.2019.05.26>  Takahiro H, Yoshinori D, Yutaka Y, Toshihiro O, Yoshifumi S, Naoya K, et al. **Risk factors of neuropathic pain after thoracic surgery.** J Thorac Dis. 2018;10(5):2898-907. <http://dx.doi.org/10.21037/jtd.2018.05.25>  Background: This study aimed to clarify the incidence and risk factors of neuropathic pain after thoracic surgery, focusing especially on patients who underwent complete video-assisted thoracoscopic surgery (VATS). Methods: We retrospectively identified 185 patients who underwent thoracic surgery at our hospital over a 2-year period. Logistic regression analysis was used to analyze the association of various factors with postoperative neuropathic pain. Results: Forty-eight (25.9%) patients developed postoperative neuropathic pain, and 9 (18.8%) of these patients reported persistent pain 1 year postoperatively. The median interval from surgical treatment to the onset of neuropathic pain was 7 days, and the duration was 50 days. Multivariate logistic regression analysis revealed a significant positive correlation between postoperative neuropathic pain and preoperative use of hypnotic medication [odds ratio (OR), 5.45; 95% confidence interval (CI); 2.52-12.17] and duration of surgery ≥2.5 hours (OR, 2.72; 95% CI, 1.27-6.09), and a significant negative association with the complete VATS approach (OR, 0.18; 95% CI, 0.073-0.42). Conclusions: Preoperative use of hypnotic medication, the thoracotomy approach, and duration of surgery ≥2.5 hours are associated with increased risk of neuropathic pain after thoracic surgery. The complete VATS approach could decrease the incidence of postoperative neuropathic pain, regardless of the duration of surgery.  Palleschi A, Privitera E, Lazzeri M, Mariani S, Rosso L, Tosi D, et al. **Prophylactic continuous positive airway pressure after pulmonary lobectomy: a randomized controlled trial**. J Thorac Dis. 2018;10(5):2829-36.  <http://dx.doi.org/10.21037/jtd.2018.05.46>  Background: Despite advances in perioperative care and surgical techniques, patients undergoing pulmonary lobectomy are still at high risk for postoperative complications. Among interventions expected to reduce complications, continuous positive airway pressure (CPAP) is a discussed option. This trial aims to test the hypothesis whether prophylactic application of CPAP following pulmonary lobectomy can reduce postoperative complications. Methods: The study was designed as a prospective, randomized, controlled trial. Patients with clinical stage I non-small cell lung cancer scheduled for pulmonary lobectomy were eligible and were trained for the use of CPAP interface. The control group received standard postoperative pain management and physiotherapy; in addition, the study group received CPAP (PEEP 8-12 cmH2O, 2 hours thrice daily for three days). Results: After the appropriate selection, 163 patients were considered for the analysis: 82 patients constituted the control group, 81 the study group. The two groups were substantially comparable for preoperative parameters. The rate of postoperative complications was lower in the study group (24.7% vs. 43.9%; P=0.015) as well as the hospital stay (6 vs. 7 days; P=0.031). The stepwise logistic regression model identified: CPAP [odd ratio (OR): 0.3026, CI: 0.1389-0.6591], smoke habits [OR: 2.5835, confidence interval (CI): 1.0331-6.4610] and length of surgery in minutes (OR: 1.0102, CI: 1.0042-1.0163) as regressors on postoperative complications. Conclusions: The present trial demonstrated that prophylactic application of CPAP during the postoperative period after pulmonary lobectomy for stage I non-small cell lung cancer was effective in prevent postoperative complications.  Yutian L, Xin W, Pengfei L, Jue L, Kun Z, Guowei C. **Preoperative peak expiratory flow (PEF) for predicting postoperative pulmonary complications after lung cancer lobectomy: a prospective study with 725 cases**. J Thorac Dis. 2018;10(7):4293-301.  <http://dx.doi.org/10.21037/jtd.2018.07.02>  Background: The study aimed to investigate the correlation between peak expiratory flow (PEF) and postoperative pulmonary complications (PPCs) for lung cancer patients undergoing lobectomy. Methods: Patients who were diagnosed with resected non-small cell lung cancer (NSCLC) (n=725) were prospectively analyzed and the relationship between the preoperative PEF and PPCs was evaluated based on patients' basic characteristics and clinical data in hospital Results: Among the 725 included patients, 144 of them were presented PPCs in 30 days after lobectomy, which were divided into PPCs group. PEF value (294.2±85.1 vs. 344.7±89.6 L/min; P<0.001) were found lower in PPCs group, compared with non-PPCs group; PEF (OR, 0.984, 95% CI: 0.980-0.987, P<0.001) was a significant independent predictor for the occurrence of PPCs; based on an receiver operating characteristic (ROC) curve, with the consideration of balancing the sensitivity and specificity, a cutoff value of 300 (L/min) (Youden index: 0.484, sensitivity: 69.4%, specificity: 79.0%) was selected and a PEF ≤300 L/min indicated a 8-fold increase in odds of having PPCs after lung surgery (OR, 8.551, 95% CI: 5.692-12.845, P<0.001). With regard to PPCs rate, patients with PEF value ≤300 L/min had high PPCs rate than those with PEF >300 L/min (45.0%, 100/222 vs. 8.7%, 44/503, P<0.001); Meanwhile, pneumonia (24.8%, 55/222 vs. 6.4%, 32/503, P<0.001), atelectasis (9.5%, 21/222 vs. 4.0%, 20/503, P=0.003) and mechanical ventilation >48 h (5.4%, 12/222 vs. 2.4%, 12/503, P=0.036) were higher in the group with PEF value ≤300 L/min. Conclusions: The presented study revealed a significant correlation between a low PEF value and PPCs in surgical lung cancer patients receiving lobectomy, indicating the potential of a low PEF as an independent risk factor for the occurrence of PPCs and a PPC-guided (PEF value ≤300 L/min) risk assessment could be meaningful for the perioperative management of lung cancer candidates waiting for surgery.  Yasushi S, Soichiro F, Naoko O, Takashi K, Ryu K, Masato M, et al. **Chest tube management in patients undergoing lobectomy.** J Thorac Dis. 2018;10(12):6432-5.  <http://dx.doi.org/10.21037/jtd.2018.11.47>  Tanvetyanon T, Keenan RJ. **Recovery of lung function after segmentectomy versus lobectomy for early-stage lung cancer**. J Thorac Dis. 2018;10:S2144-S6.  <http://dx.doi.org/10.21037/jtd.2018.06.41>  Petrella F, Sandri A, Rizzo S, Borri A, Galetta D, Gasparri R, et al. **Emergency drain for post pneumonectomy bronchopleural fistula: a drain placement technique based on the siphon principle**. J Thorac Dis. 2018;10(1):468-71.  <http://dx.doi.org/10.21037/jtd.2017.11.145>  Post pneumonectomy bronchopleural fistula (BPF) is a life-threatening complication requiring pleural cavity drainage to avoid acute mediastinal shift and contralateral aspiration pneumonia. Chest drain insertion in this situation may be technically difficult because of drastic anatomical changes such as mediastinal dislocation, diaphragm elevation and, sometimes, massive subcutaneous emphysema. In addition, the most important part of the pleural cavity to be drained is the costophrenic recess that is scarcely drained by a standard chest tube with its tip aiming high and upwards. We propose a safe, simple and effective technique based on the siphon principle to drain the lowest part of the pleural cavity.  Pengfei LI, Yutian LAI, Kun Z, Jianhua SU, Guowei CHE. **Can Perioperative Oscillating Positive Expiratory Pressure Practice Enhance Recovery in Lung Cancer Patients Undergoing Thorascopic Lobectomy?** Chinese Journal of Lung Cancer. 2018;21(12):890-5. <http://dx.doi.org/10.3779/j.issn.1009-3419.2018.12.06>  Background and objective Oscillatory positive expiratory pressure (OPEP) training is a kind of breathing exercise with Acapella. The clinical value of OPEP has been widely discussed in chronic obstructive pulmonary disease, bronchiectasis as well as pulmonary cyst. However, few studies have explored the application of OPEP in surgery lung cancer patients underwent lobectomy. Thus, the aim of this study is to explore the impact of the application of OPEP device (acapella) in lung cancer patients undergoing video-assisted thorascopic surgery (VATS). Methods Sixty-nine patients receiving VATS lobectomy in Department of Thoracic Surgery, West China Hospital, Sichuan University from September 15, 2017 to January 15, 2018 were randomly divided into the acapella group (AG) or the control group (CG). The patients in the AG received oscillating positive expiratory pressure training and the CG underwent standard perioperative treatment. The differences of morbidity, pulmonary function, quality of life were compared between the two groups. Results Thirty-five patients were assigned to the AG and thirty-four patients were assigned to the CG. The incidences of postoperative pulmonary complications (PPCs) and atelectasis (2.9%, 0.0%) in the AG were significantly lower than that in the CG (20.6%, 14.7%)(P=0.03, P=0.03). The duration of total hospital stay and postoperative hospital stay in the AG (10.86±5.64, 5.09±4.55) d were significantly shorter than that in the CG (10.86±5.64, 5.09±4.55) d (P=0.01, P=0.01). The drug cost in the AG (4,413.60± 1,772.35) ¥ were significantly lower than that in the CG (6,490.35±3,367.66) ¥ (P=0.01). The patients in the AG had better forced expiratory volume in the first second and peak expiratory flow [(1.50±0.32) L,(252.06±75.27) L/min] compared with the CG [(1.34±0.19) ±49.72) L/min] (P=0.03, P=0.03) at discharge. Conclusion The application of OPEP device during the perioperative period was valuable in decreasing PPCs and enhancing recovery for lung cancer patients receiving VATS lobectomy.  Palleschi A, Privitera E, Lazzeri M, Mariani S, Rosso L, Tosi D, et al. **Prophylactic continuous positive airway pressure after pulmonary lobectomy: a randomized controlled trial.** J Thorac Dis. 2018;10(5):2829-36.  <http://dx.doi.org/10.21037/jtd.2018.05.46>  Background: Despite advances in perioperative care and surgical techniques, patients undergoing pulmonary lobectomy are still at high risk for postoperative complications. Among interventions expected to reduce complications, continuous positive airway pressure (CPAP) is a discussed option. This trial aims to test the hypothesis whether prophylactic application of CPAP following pulmonary lobectomy can reduce postoperative complications. Methods: The study was designed as a prospective, randomized, controlled trial. Patients with clinical stage I non-small cell lung cancer scheduled for pulmonary lobectomy were eligible and were trained for the use of CPAP interface. The control group received standard postoperative pain management and physiotherapy; in addition, the study group received CPAP (PEEP 8-12 cmH2O, 2 hours thrice daily for three days). Results: After the appropriate selection, 163 patients were considered for the analysis: 82 patients constituted the control group, 81 the study group. The two groups were substantially comparable for preoperative parameters. The rate of postoperative complications was lower in the study group (24.7% vs. 43.9%; P=0.015) as well as the hospital stay (6 vs. 7 days; P=0.031). The stepwise logistic regression model identified: CPAP [odd ratio (OR): 0.3026, CI: 0.1389-0.6591], smoke habits [OR: 2.5835, confidence interval (CI): 1.0331-6.4610] and length of surgery in minutes (OR: 1.0102, CI: 1.0042-1.0163) as regressors on postoperative complications. Conclusions: The present trial demonstrated that prophylactic application of CPAP during the postoperative period after pulmonary lobectomy for stage I non-small cell lung cancer was effective in prevent postoperative complications.  Palleschi A, Mendogni P, Mariolo AV, Nosotti M, Rosso L. **An alternative chest tube placement after uniportal video-assisted thoracic surgery**. J Thorac Dis. 2018;10(5):3078-80. <http://dx.doi.org/10.21037/jtd.2018.04.108>  Lieberman-Cribbin W, Wolf A, Schwartz R, Flores R, Taioli E. MA12.02 **Quality of Life Following Pleurectomy Decortication and Extrapleural Pneumonectomy for Pleural Malignant Mesothelioma**. J Thorac Oncol. 2018;13:S396-S.  <http://dx.doi.org/10.1016/j.jtho.2018.08.413>  Lai Y, Wang X, Zhou H, Kunzhou PL, Che G. **Is it safe and practical to use a Foley catheter as a chest tube for lung cancer patients after lobectomy? A prospective cohort study with 441 cases.** International Journal of Surgery. 2018;56:215-20.  <http://dx.doi.org/10.1016/j.ijsu.2018.06.028>  Objective: This study was conducted to explore the feasibility and safety of postoperative chest drainage with a Foley catheter for lung cancer patients undergoing a video-assisted thoracoscopic surgery (VATS) lobectomy.Methods: Data from lung cancer patients who underwent a VATS lobectomy with insertion of a catheter (Foley catheter or 28-F chest tube) were analysed. A total of 441 patients were included preoperatively for participation, with 208 patients in the Foley catheter group and 233 in the 28-F group.Results: In the Foley catheter group, a shorter mean number of days was required until chest tube removal after lobectomy (2.6 ± 1.3 vs. 3.5 ± 2.0 d, P < 0.001) and postoperative length of stay was shorter (3.8 ± 2.5 vs. 5.2 ± 4.1 d, P < 0.001); The 28-F group had a higher average VAS score than did the Foley catheter group at 6 h (P = 0.025), and 48 h (P < 0.001) after VATS lobectomy as well as at 6 h, 24 h, 48 h, 72 h, 30 days and 90 days after chest tube removal (P < 0.001). Regarding postoperative pulmonary complications (PPCs) and chest tube removal-related complications, the rate of PPCs was not found to be significant, and a significantly higher proportion of disordered wound healing at the drainage site was observed in the 28-F group (5.8%, 12/208 vs. 11.6%, 27/233; P = 0.043).Conclusion: The study indicated that placement of Foley catheter vs. 28-F chest tube was associated with a statistically significant but clinically modest reduction in pain, with shorter mean days until chest tube removal after lobectomy, shorter in-hospital stay, and a smaller proportion of disordered wound healing at the drainage site. These results indicate the feasibility and safety of postoperative chest drainage with a Foley catheter for lung cancer patients undergoing VATS lobectomy.Clinical Registration Number: ChiCTR1800014816.  Kheir F. **Postoperative chest tube management for patients undergoing lobectomy: evidence-based practice**. J Thorac Dis. 2018;10:S4130-S2. <http://dx.doi.org/10.21037/jtd.2018.10.12>  Gil T, Grochowski Z, Warmus J, Bederski K, Kocoń P, Włodarczyk J, et al. P2.17-11 **Impact of Quantitatively Assessed Emphysema on Chest Tube Drainage After Lobectomy for Non-Small Cell Lung Cancer.** J Thorac Oncol. 2018;13:S856-S.  <http://dx.doi.org/10.1016/j.jtho.2018.08.1537>  Fernando HC. **The management of chest tubes after pulmonary lobectomy--driven by dogma or by science?** J Thorac Dis. 2018;10(11):5968-9.  <http://dx.doi.org/10.21037/jtd.2018.10.47>  Ellenberger C, Garofano N, Reynaud T, Triponez F, Diaper J, Bridevaux P-O, et al. **Patient and procedural features predicting early and mid-term outcome after radical surgery for non-small cell lung cancer.** J Thorac Dis. 2018;10(11):6020-9.  <http://dx.doi.org/10.21037/jtd.2018.10.36>  Tanaka T, Morishita S, Hashimoto M, Itani Y, Mabuchi S, Kodama N, et al. **Physical function and health-related quality of life in patients undergoing surgical treatment for malignant pleural mesothelioma**. Support Care Cancer. 2017;25(8):2569-75.  <http://dx.doi.org/10.1007/s00520-017-3666-z>  Introduction: Malignant pleural mesothelioma (MPM) is a rare cancer that affects the thin cell wall lining of internal organs and structures. Studies have shown that patients with lung cancer have decreased pulmonary function and exercise capacity after pneumonectomy. However, to date, physical function and health-related quality of life (HRQOL) in surgically treated MPM patients have not been evaluated in detail. The aim of this study was to assess physical function and HRQOL of MPM patients following pleurectomy/decortication (P/D).Methods: The subjects were 22 MPM patients (20 men and 2 women) who completed P/D between December 2013 and March 2015. Physical function was assessed using handgrip strength and knee extensor strength tests, the 6-min walk distance (6MWD), and pulmonary function tests, including forced expiratory vital capacity (FVC) and forced expiratory volume in 1 s (FEV1). HRQOL was assessed using the Medical Outcome Study 36-item Short Form Health Survey (SF-36).Results: The handgrip strength (P < 0.05), 6MWD, FVC, and FEV1 values following P/D decreased significantly compared to baseline (P < 0.001 for each comparison). Additionally, scores of three of the eight SF-36 domains were significantly lower following P/D: physical functioning (P < 0.001), body pain (P = 0.002), and vitality (P = 0.005). 6MWD correlated role physical (P < 0.05) and vitality (P < 0.01). Significant correlations were also observed between FEV1 and physical functioning (P < 0.05) and social functioning (P < 0.05).Conclusion: Patients with MPM who completed P/D have decreased physical function and HRQOL. Following surgery, exercise capacity and pulmonary function decreased more than limb muscle strength. Physicians, nurses, and rehabilitation staff should note these findings, which may provide insight into the development of customized rehabilitation strategies for patients with MPM who completed P/D.  Shi Y, Xing W, Yaqi W, Chao L, Yuzhao W, Jia W, et al. **Intermittent chest tube clamping may shorten chest tube drainage and postoperative hospital stay after lung cancer surgery: a propensity score matching analysis**. J Thorac Dis. 2017;9:5061-7.  <http://dx.doi.org/10.21037/jtd.2017.11.08>  Background: Postoperative pleural drainage markedly influences the length of hospital stay and the financial costs of medical care. The safety of chest tube clamping before removal has been documented. This study aims to determine if intermittent chest tube clamping shortens the duration of chest tube drainage and hospital stay after lung cancer surgery. Methods: We retrospectively analyzed 285 consecutive patients with operable lung cancer treated using lobectomy and systematic mediastinal lymphadenectomy. The chest tube management protocol in our institution was changed in January 2014, and thus, 222 patients (clamping group) were managed with intermittent chest tube clamping, while 63 patients (control group) were managed with a traditional protocol. Propensity score matching at a 1:1 ratio was applied to balance variables potentially affecting the duration of chest tube drainage. Analyses were performed to compare drainage duration and postoperative hospital stay between the two groups in the matched cohort. Multivariate logistic regression analyses were performed to predict the factors associated with chest tube drainage duration. Results: The rates of thoracocentesis after chest tube removal were similar between the clamping and control groups in the whole cohort (0.5% vs. 1.6%, P=0.386). The rates of pyrexia were also comparable in the two groups (2.3% vs. 3.2%, P=0.685). After propensity score matching, 61 cases remained in each group. Both chest tube drainage duration (3.9 vs. 4.8 days, P=0.001) and postoperative stay (5.7 vs. 6.4 days, P=0.025) were significantly shorter in the clamping group than in the control group. Factors significantly associated with shorter chest tube drainage duration were female sex, chest tube clamping, left lobectomy, and video-assisted thoracoscopic surgery (VATS) (P<0.05). Conclusions: Intermittent postoperative chest tube clamping may decrease the duration of chest tube drainage and postoperative hospital stay while maintaining patient safety.  Shaodong W, Xiao L, Yun L, Jianfeng L, Guanchao J, Jun L, et al. **The long-term impact of postoperative pulmonary complications after video-assisted thoracic surgery lobectomy for lung cancer**. J Thorac Dis. 2017;9:5143-52.  <http://dx.doi.org/10.21037/jtd.2017.10.144>  Background: Pulmonary complications (PCs) may influence long-term survivor. We sought to determine the long-term impacts of major pulmonary complications (MPCs) and identify the independent risk factors in non-small cell lung cancer (NSCLC) patients. Methods: A retrospective study was conducted to analyze the PCs of 828 NSCLC patients who underwent video-assisted thoracic surgery (VATS) lobectomy in Peking University Hospital, the complications were graded according to TMM classification. The effects of PCs on the long-term prognosis were analyzed by using the Kaplan-Meier method. Multivariate logistic regression analysis was used to determine the risk factors of MPCs. Results: Of 828 patients, 139 had PCs, including 66 (8%) MPCs, those patients who developed a PC had longer drainage time, hospital stay and higher perioperative mortality rate. Excluding perioperative deaths, those who develop a MPC had a reduced 3-year disease-free survival (DFS) and 5-year DFS (68.2% vs. 78.7%, 44.7% vs. 70.3%; P=0.001), as well as the reduced 3-year overall survival (OS) and 5-year OS (81.8% vs. 88.6%, 66.6% vs. 80.9%; P=0.023). MPCs were independent prognostic factors of patients with lung cancer. Multivariate logistic regression analysis showed that the independent risk factors for MPCs were age [P=0.007; hazard ratio (HR): 1.05, 95% confidence interval (CI): 1.01-1.08], male (P=0.001; HR: 3.33, 95% CI: 1.87-5.94) and American Society of Anesthesiologist (ASA) grade. Conclusions: MPC after VATS lobectomy is associated with a poorer long-time outcome. The independent risk factors for MPCs were age, male and ASA grade.  Kun Z, Jianhua S, Yutian L, Pengfei L, Shuangjiang L, Guowei C. **Short-term inpatient-based high-intensive pulmonary rehabilitation for lung cancer patients: is it feasible and effective?** J Thorac Dis. 2017;9:4486-91.  <http://dx.doi.org/10.21037/jtd.2017.10.105>  Background: This study was conducted to develop a preoperative in-hospital short-term rehabilitation program for surgical lung cancer patients, and investigate its feasibility, potential cost benefit and effectiveness on outcome measures including reduction of postoperative pulmonary complications (PPCs) and postoperative length of stay. Methods: A 7-day inpatient-based high-intensive rehabilitation regimen was performed between March 01, 2014 and June 30, 2015. It was combined with inspiratory muscles training (IMT) and aerobic endurance training and was tested in an enriched cohort study with 939 lung cancer patients undergoing lobectomy in a regional thoracic unit. Results: Finally, 939 patients were divided into pulmonary rehabilitation (PR) group (n=197) and non-PR (NPR) group (n=742), according to whether they received the 7-day preoperative in-hospital systematic rehabilitation. The PR group had a shorter total length of stay (14.7±4.0 vs. 16.7±6.2 days, P<0.001) as well as postoperative length of stay (6.2±3.3 vs. 8.3±5.6 days, P<0.001) than the NPR group. Lower incidences of total PPCs (18.3%, 36/197 vs. 26.1%, 194/742, P=0.022), pneumonia (11.2%, 22/197 vs. 17.3%, 128/742, P=0.024) and atelectasis (6.6%, 13/197 vs. 12.3%, 91/742, P=0.038) were found in the PR group compared with NPR group. Meanwhile, a multivariable analysis of risk to PPCs, atelectasis and pneumonia, revealed that the PR intervention was the independent risk factor of the occurrence of the PPCs (OR =0.57, 95% CI: 0.47 to 0.93, P=0.033) and atelectasis (OR =0.49, 95% CI: 0.26 to 0.91, P=0.024). Conclusions: The study showed the effectiveness of this systematic and high-intensive PR combining IMT and aerobic exercise in reductions of the length of stay and occurrence of PPCs without increase in in-hospital cost, suggesting the potential of this rehabilitation pattern as a practicable strategy performed preoperatively in surgical lung cancer patients.  Hayashi K, Inoue T, Nagaya M, Ito S, Nakajima H, Hattori K, et al. **Combination Treatment of Perioperative Rehabilitation and Psychoeducation Undergoing Thoracic Surgery**. Case Report Med. 2017:1-6.  <http://dx.doi.org/10.1155/2017/4743952>  Postoperative pulmonary complications are a risk associated with thoracic surgery. However, there have been few reports on cases at high risk of postoperative complications. Cancer patients often have negative automatic thoughts about illness, and these negative automatic thoughts are associated with reduced health behavior and physical activity. This case series demonstrates the successful combination treatment of perioperative rehabilitation and psychoeducation for negative automatic thoughts in two cancer patients who underwent thoracic surgery. One patient underwent pneumonectomy with laryngeal recurrent nerve paralysis; the other patient, who had a history of recurrent hepatic encephalopathy and dialysis, underwent S6 segmentectomy. Both patients had negative automatic thoughts about cancer-related stress and postoperative pain. The physical therapists conducted a perioperative rehabilitation program in which the patients were educated to replace their maladaptive thoughts with more adaptive thoughts. After rehabilitation, the patients had improved adaptive thoughts, increased physical activity, and favorable recovery without pulmonary complications. This indicates that the combination treatment of perioperative rehabilitation and psychoeducation was useful in two thoracic cancer surgery patients. The psychoeducational approach should be expanded to perioperative rehabilitation of patients with cancer.  Cavalheri V, Jenkins S, Cecins N, Gain K, Phillips MJ, Sanders LH, et al. **Exercise training for people following curative intent treatment for non-small cell lung cancer: a randomized controlled trial.** Brazilian Journal of Physical Therapy / Revista Brasileira de Fisioterapia. 2017;21(1):58-68.  <http://dx.doi.org/10.1016/j.bjpt.2016.12.005>  Objective: In people following curative intent treatment for non-small cell lung cancer, to investigate the effects of supervised exercise training on exercise capacity, physical activity and sedentary behavior, peripheral muscle force, health-related quality of life, fatigue, feelings of anxiety and depression, and lung function. Method: This pilot randomized controlled trial included participants 6-10 weeks after lobectomy for non-small cell lung cancer or, for those who required adjuvant chemotherapy, 4-8 weeks after their last cycle. Participants were randomized to either 8 weeks of supervised exercise training (exercise group) or 8 weeks of usual care (control group). Prior to and following the intervention period, both groups completed measurements of exercise capacity, physical activity and sedentary behavior, quadriceps and handgrip force, HRQoL, fatigue, feelings of anxiety and depression, and lung function. Intention-to-treat analysis was undertaken. Results: Seventeen participants (mean age 67, SD = 9 years; 12 females) were included. Nine and eight participants were randomized to the exercise and control groups, respectively. Four participants (44%) adhered to exercise training. Compared with any change seen in the control group, those in the exercise group demonstrated greater gains in the peak rate of oxygen consumption (mean difference, 95% confidence interval for between-group difference: 0.19 [0.04-0.33] Lmin-1) and 6-minute walk distance (52 [12-93] m). No other between-group differences were demonstrated. Conclusions: In people following curative intent treatment for non-small cell lung cancer, 8 weeks of supervised exercise training improved exercise capacity, measured by both laboratory- and field-based exercise tests. These results suggest that this clinical population may benefit from attending exercise training programs.  Maeda K, Higashimoto Y, Honda N, Shiraishi M, Hirohata T, Minami K, et al. **Effect of a postoperative outpatient pulmonary rehabilitation program on physical activity in patients who underwent pulmonary resection for lung cance**r. Geriatrics & Gerontology International. 2016;16(5):550-5.  <http://dx.doi.org/10.1111/ggi.12505>  Aim Physical activity ( PA) has been associated with an improvement in survival for individuals with cancer. However, little is known about the effect of postoperative pulmonary rehabilitation on PA after lobectomy in patients with lung cancer. The present study investigated the effect of outpatient rehabilitation on PA in patients with cancer after lung resection. Methods A total of 19 patients with lung cancer were recruited for this study and completed a preoperative rehabilitation program. One group of nine patients completed a postoperative outpatient pulmonary rehabilitation program (rehabilitation) and another group of 10 patients did not (control), but were similarly followed up. Preoperative lung function, assessed by forced expiratory volume in 1 s ( FEV1), body mass index ( BMI) and St. George's Respiratory Questionnaire ( SGRQ) score were not different between groups. PA was measured before and 2 months after surgery using a three-axis accelerometer for 5-6 days. PA level ( PAL) was defined as total energy expenditure divided by basal metabolic rate. Results Preoperative PAL was not different between groups. However, postoperative versus preoperative PAL was significantly lower in the control versus the rehabilitation group ( P < 0.01), and PAL decline was less for the rehabilitation versus the control group ( P < 0.001). A subgroup analysis showed improvement in postoperative PAL in rehabilitation patients aged <75 years and older. Conclusions Two months after lung resection surgery, patients had not recovered to the preoperative PAL. However, compared with the control group, there was an improvement in the postoperative PAL in patients, including older patients, who underwent outpatient pulmonary rehabilitation. Geriatr Gerontol Int 2016; 16: 550-555.  Jung JJ, Cho JH, Kim HK, Choi YS, Kim J, Zo JI, et al. **Management of post-pneumonectomy syndrome using tissue expanders**. Thoracic Cancer. 2016;7(1):88-93.  <http://dx.doi.org/10.1111/1759-7714.12282>  Background Post-pneumonectomy syndrome ( PPS) is a rare syndrome characterized by trachea-bronchial stenosis and severe dyspnea. In this study, we retrospectively evaluated the clinical outcomes in patients who underwent placement of tissue expanders for PPS. Methods Data from patients who underwent placement of tissue expanders for PPS were analyzed for preoperative characteristics, surgical techniques, and postoperative outcomes. Between 1997 and 2014, a total of 10 patients were treated for PPS by tissue expanders. Results The median age of the 10 patients was 45 years (range, 16-70). Four patients had undergone right pneumonectomy, three patients had undergone left pneumonectomy, and three patients had post-pneumonectomy-like syndrome. Preoperatively, seven patients initially received high oxygen therapy for hypoxemia but progressed to respiratory failure, and three patients required mechanical ventilator support. Among these three patients, one required intraoperative extracorporeal membrane oxygenation support because of sudden cardiac arrest during preparation for surgery. The median follow-up was 59.5 months (range, 2-204). The median interval between pneumonectomy and repositioning was 13 months (range, 8-581). Two patients underwent placement of a single tissue expander, and two tissue expanders were placed in eight of the 10 patients. The median volume of tissue expanders inflated with saline was 450 cc (range, 60-850 cc) per tissue expander. There was no perioperative mortality in our study. Complications occurred in four patients (40%). Conclusions Repositioning of the mediastinum with placement of a saline filled tissue expander for PPS is very effective for the relief of symptoms, with low mortality.  Ha D, Mazzone PJ, Ries AL, Malhotra A, Fuster M. **The Utility of Exercise Testing in Patients with Lung Cancer.** J Thorac Oncol. 2016;11(9):1397-410.  <http://dx.doi.org/10.1016/j.jtho.2016.04.021>  The harm associated with lung cancer treatment include perioperative morbidity and mortality and therapy-induced toxicities in various organs, including the heart and lungs. Optimal treatment therefore entails a need for risk assessment to weigh the probabilities of benefits versus harm. Exercise testing offers an opportunity to evaluate a patient's physical fitness/exercise capacity objectively. In lung cancer, it is most often used to risk-stratify patients undergoing evaluation for lung cancer resection. In recent years, its use outside this context has been described, including in nonsurgical candidates and lung cancer survivors. In this article we review the physiology of exercise testing and lung cancer. Then, we assess the utility of exercise testing in patients with lung cancer in four contexts (preoperative evaluation for lung cancer resection, after lung cancer resection, lung cancer prognosis, and assessment of efficiency of exercise training programs) after systematically identifying original studies involving the most common forms of exercise tests in this patient population: laboratory cardiopulmonary exercise testing and simple field testing with the 6-minute walk test, shuttle walk test, and/or stair-climbing test. Lastly, we propose a conceptual framework for risk assessment of patients with lung cancer who are being considered for therapy and identify areas for further studies in this patient population.  Bharat A, Graf N, Mullen A, Kanter J, Andrei A-C, Sporn PHS, et al. **Pleural Hypercarbia After Lung Surgery Is Associated With Persistent Alveolopleural Fistulae.** Chest. 2016;149(1):220-7.  <http://dx.doi.org/10.1378/chest.15-1591>  Background: Persistent air leak (PAL) > 5 days due to alveolopleural fistulae is a leading cause of morbidity following surgical resection. Elevated CO2 levels reportedly inhibit alveolar epithelial cell proliferation and impair wound healing in vitro. Because the injured lung surface is in direct communication with the pleural cavity, we investigated whether the pleural gaseous milieu affected lung healing.Methods: Oxygen and CO2 levels in pleural gas were determined prospectively in consecutive patients (N = 116) undergoing lung resection by using an infrared spectroscopy-based analyzer. Poisson and logistic regression analyses were used to determine the relationship between time to resolution of air leaks and pleural oxygen and CO2. In addition, patients with pleural CO2 concentrations ? 6% on postoperative day 1 (n = 20) were alternatively treated with supplemental oxygen and extrapleural suction to reduce the pleural CO2 levels.Results: Poisson analyses revealed that every 1% increase in CO2 was associated with a delay in resolution of air leak by 9 h (95% CI, 7.1 to 10.8; P < .001). Linear regression showed that every 1% increase in CO2 increased the odds of PAL by 10-fold (95% CI, 2.2 to 47.8; P = .003). In patients with pleural CO2 ? 6%, a reduction in CO2 promoted resolution of air leak (6.0 ± 1.2 vs 3.4 ± 1.1 days; P < .001).Conclusions: Pleural hypercarbia seems to be associated with persistent alveolopleural fistulae following lung resection. Analysis of pleural gases could allow for better chest tube management following lung resection. Patients with intrapleural hypercarbia seem to benefit from supplemental oxygen and suction, whereas patients who do not have hypercarbia can be maintained on water seal drainage.  Bendixen M, Jørgensen OD, Kronborg C, Andersen C, Licht PB. **Postoperative pain and quality of life after lobectomy via video-assisted thoracoscopic surgery or anterolateral thoracotomy for early stage lung cancer: a randomised controlled trial.** Lancet Oncol. 2016;17(6):836-44.  <http://dx.doi.org/10.1016/S1470-2045(16)00173-X>  Background: Video-assisted thoracoscopic surgery (VATS) is used increasingly as an alternative to thoracotomy for lobectomy in the treatment of early-stage non-small-cell lung cancer, but remains controversial and worldwide adoption rates are low. Non-randomised studies have suggested that VATS reduces postoperative morbidity, but there is little high-quality evidence to show its superiority over open surgery. We aimed to investigate postoperative pain and quality of life in a randomised trial of patients with early-stage non-small-cell lung cancer undergoing VATS versus open surgery.Methods: We did a randomised controlled patient and observer blinded trial at a public university-based cardiothoracic surgery department in Denmark. We enrolled patients who were scheduled for lobectomy for stage I non-small-cell lung cancer. By use of a web-based randomisation system, we assigned patients (1:1) to lobectomy via four-port VATS or anterolateral thoracotomy. After surgery, we applied identical surgical dressings to ensure masking of patients and staff. Postoperative pain was measured with a numeric rating scale (NRS) six times per day during hospital stay and once at 2, 4, 8, 12, 26, and 52 weeks, and self-reported quality of life was assessed with the EuroQol 5 Dimensions (EQ5D) and the European Organisation for Research and Treatment of Cancer (EORTC) 30 item Quality of Life Questionnaire (QLQ-C30) during hospital stay and 2, 4, 8, 12, 26, and 52 weeks after discharge. The primary outcomes were the proportion of patients with clinically relevant moderate-to-severe pain (NRS ≥3) and mean quality of life scores. These outcomes were assessed longitudinally by logistic regression across all timepoints. Data for the primary analysis were analysed by modified intention to treat (ie, all randomised patients with pathologically confirmed non-small-cell lung cancer). This trial is registered with ClinicalTrials.gov, number NCT01278888.Findings: Between Oct 1, 2008, and Aug 20, 2014, we screened 772 patients, of whom 361 were eligible for inclusion and 206 were enrolled. We randomly assigned 103 patients to VATS and 103 to anterolateral thoracotomy. 102 patients in the VATS group and 99 in the thoracotomy group were included in the final analysis. The proportion of patients with clinically relevant pain (NRS ≥3) was significantly lower during the first 24 h after VATS than after anterolateral thoracotomy (VATS 38%, 95% CI 0·28-0·48 vs thoracotomy 63%, 95% CI 0·52-0·72, p=0·0012). During 52 weeks of follow-up, episodes of moderate-to-severe pain were significantly less frequent after VATS than after anterolateral thoracotomy (p<0·0001) and self-reported quality of life according to EQ5D was significantly better after VATS (p=0·014). By contrast, for the whole study period, quality of life according to QLQ-C30 was not significantly different between groups (p=0·13). Postoperative surgical complications (grade 3-4 adverse events) were similar between the two groups, consisting of prolonged air leakage over 4 days (14 patients in the VATS group vs nine patients in the thoracotomy group), re-operation for bleeding (two vs none), twisted middle lobe (one vs three) or prolonged air leakage over 7 days (five vs six), arrhythmia (one vs one), or neurological events (one vs two). Nine (4%) patients died during the follow-up period (three in the VATS group and six in the thoracotomy group).Interpretation: VATS is associated with less postoperative pain and better quality of life than is anterolateral thoracotomy for the first year after surgery, suggesting that VATS should be the preferred surgical approach for lobectomy in stage I non-small-cell lung cancer.Funding: Simon Fougner Hartmanns Familiefond, Guldsmed AL & D Rasmussens Mindefond, Karen S Jensens legat, The University of Southern Denmark, The Research Council at Odense University Hospital, and Department of Cardiothoracic Surgery, Odense University Hospital.  French DG, Dilena M, LaPlante S, Shamji F, Sundaresan S, Villeneuve J, et al. **Optimizing postoperative care protocols in thoracic surgery: best evidence and new technology**. J Thorac Dis. 2016;8:S3-S11. <http://dx.doi.org/10.3978/j.issn.2072-1439.2015.10.67>  De Caridi G, Serra R, Massara M, Barone M, Grande R, Butrico L, et al. **VAC therapy for the treatment of complex wounds after cardio-thoracic surgery**. Int Wound J. 2016;13(5):759-62. <http://dx.doi.org/10.1111/iwj.12369>  The aim of this study is to report our experience about the treatment of complex sternal and thoracic wounds following cardiothoracic surgery, using vacuum-assisted closure ( VAC therapy. Twelve patients presenting with sternal (five cases) and thoracic (seven cases) wounds that were difficult to heal were treated through VAC therapy after the first surgical debridement. The duration of VAC application ranged from 12 to 36 days with an average hospital stay of 24·6 ± 11·4 days. During a mean follow-up of 12 months, we observed complete wound healing in seven cases (58·3%), in an average period of 25·5 ± 14·3 days; one patient died during follow-up, two patients were lost to follow-up and two patients required definitive surgical closure of the wound cavity. In conclusion, VAC therapy promotes faster wound healing, with shorter hospital stay and subsequent lesser in-hospital cost, reducing the mortality rate in the long run. It also promotes early rehabilitation and alleviates the need for a second procedure, thus improving patient satisfaction, with minimal discomfort or inconvenience.  Zhao J, Zhao Y, Qiu T, Jiao W, Xuan Y, Wang X, et al. **Quality of life and survival after II stage nonsmall cell carcinoma surgery: Video-assisted thoracic surgery versus thoracotomy lobectomy.** Indian J Cancer. 2015;52:e130-e3.  <http://dx.doi.org/10.4103/0019-509X.172510>  Purpose: Due to the improvement of thoracoscopic technology and surgeon's ability, plenty of nonsmall cell lung cancer (NSCLC) was treated by video-assisted thoracic surgery (VATS). This study was designed to evaluate the quality of life (QOL) and survival in II stage NSCLC patients following lobectomy, comparing VATS with thoracotomy.Methods: Between 2010 and 2012, 217 II stage NSCLC patients (VATS: 114 patients, OPEN: 103 patients) were enrolled in a long-standing, prospective observational lung cancer surgery outcomes study. Short-form 36 health survey (SF-36) and time to progression (TTP) were measured to evaluate the QOL and postoperative survival.Results: There were significant differences between the two groups in the preoperative radiation therapy and differentiation, and the VATS group had less postoperative complication, blood loss, intraoperative fluid administration, and shorter length of stay. Statistical analysis of SF-36 questionnaire revealed that VATS group score was higher on seven health dimensions: Bodily pain (BP), energy (EG), general health, physical functioning, mental health, SF, and role-physical (RP), but only BP, EG, and RP have statistical significance. Using survival analysis, there was no significant difference between VATS and OPEN group, in which the mean TTP of VATS group is 18.5 months, while OPEN group is 20 months.Conclusions: VATS lobectomy tends to score higher on the QOL and functioning scales and has equivalent postsurgical survival compared with OPEN lobectomy for II stage nonsmall cell carcinoma patients.  Hopmans W, Damman OC, Senan S, Hartemink KJ, Smit EF, Timmermans DRM. **A patient perspective on shared decision making in stage I non-small cell lung cancer: a mixed methods study**. BMC Cancer. 2015;15:1-9.  <http://dx.doi.org/10.1186/s12885-015-1974-6>  Background: Surgery and stereotactic ablative radiotherapy (SABR) are both curative treatment options for patients with a stage I non-small cell lung cancer (NSCLC). Consequently, there is growing interest in studying the role of patients in treatment decision making. We studied how patients with stage I NSCLC perceived shared decision making (SDM) in general, and how they viewed different aspects of SDM.Methods: A sequential mixed methods design was used, consisting of qualitative interviews (N=11), as well as a survey study (N=76) focusing on different SDM-related aspects. Participants were interviewed to understand their own experience with treatment decision making. In the survey study, patients rated the importance of 20 aspects of shared decision making that were identified during interviews. Descriptive analysis and explorative factor analysis were performed.Results: We assessed six qualitative themes covering SDM aspects that were determined by patients to be important. The survey identified four SDM-related factors with sufficient internal consistency, namely (1) 'guidance by clinician' (α=.741), (2) 'conduct of clinician' (α=.774); (3) 'preparation for treatment decision making' (α=.864); and (4) 'active role of patient in treatment decision making' (α=.782). Of these, clinician guidance was rated as most important by patients (M=3.61; SD=.44). Only 28.9% of patients in the survey study reported that both treatment options were discussed with them.Conclusions: Patients with a stage I NSCLC found clinician guidance to be important when making treatment decisions. Nevertheless, the majority of patients reported not being offered both treatment options, which might have influenced this finding. |