19. Impact of perioperative redox balance on long-term outcome in patients undergoing lung resection.

Dept. General Thoracic Surgery, Dokkyo Medical University, Shimotsuga, Japan
Araki O, Ito Y, Nishihira M, Inoue T, Karube Y, Maeda S, Kobayashi S, Chida M

Background：Surgical stress provokes a cytokine storm and systemic inflammatory response syndrome, and can also affect redox balance during the postoperative course. However, whether inflammatory status, especially redox balance, during the perioperative period has effects on long-term outcome following surgery for lung cancer remains unclear.

Purpose：To determine whether redox balance during the perioperative period is associated with long-term survival of patients after undergoing lung resection.

Methods：Consecutive patients who underwent an anatomical lung resection greater than a segmentectomy for non-small cell lung cancer from January to June 2013 at our institution were investigated.

The Ethical Committee of Dokkyo Medical University Hospital approved this study(#24043)and all participating patients provided informed consent.

Serum was collected during the operation, and on post-operative day（POD）3 and 7, and the levels of reactive oxygen metabolites（d-ROM）and biological antioxidant potential（BAP）were measured using FREE carpe diem（Wismerll）.

We analyzed overall survival, relapse, and cause of death.

Results：d-ROM values on POD 3 and 7 were significantly increased as compared to those obtained during the operation, whereas BAP did not significantly change after surgery. A receiver operating characteristic curve revealed a dROM cut-off value of 327 during the operation in regard to all death. AUC was 0.811. Patients with a dROM value of 327 or less showed significantly superior 3-year survival as compared to those with a greater value（87.5% vs. 20.0%, p< 0.001）.

Conclusion：Surgical stress caused an increase in dROM during the postoperative course. The dROM value obtained during the operation was correlated with long-term survival of patients after undergoing resection for lung cancer. The dROM value may be a useful predictor of overall survival after lung cancer resection as well as nutrition/inflammatory prognostic factors.

20. 若年者白内障手術成績の検討

獨協医科大学　眼科学教室
青瀬雅資，松島博之，後藤憲仁，妹尾　正

【目的】当院で施行した40歳未満の若年者白内障手術の臨床的特長と手術成績について検討した．

【方法】対象は2014年1月1日から2015年12月31日までに当院で水晶体再建術を施行した40歳未満の症例51例70眼で，先天および発達白内障が疑われる症例はすべて除外した．性別，年齢，眼軸長，白内障の原因と病型，使用した眼内レンズ（IOL）（単焦点IOLまたは多焦点IOL），術前後の視力と角膜内皮細胞減少率，屈折誤差，術中術後合併症を後ろ向きに検討した．

【結果】性別は男性40例，女性15例と男性が多く，半数以上が30歳代で手術を施行していた．平均眼軸長は24.5±1.8 mmで，白内障の原因はアトピー性白内障が47眼と最も多く，白内障の性状は前嚢下が33眼，後嚢下が17眼，前後嚢下が11眼，成熟白内障が6眼で，核白内障3眼であった．使用したIOLは，単焦点IOLが55眼，多焦点IOLが15眼で，約20%の症例で多焦点IOLを挿入していた．視力は術前平均0.21，術後平均1.03で，手術により視力改善を認めた．7割以上の症例で±0.5D以内の屈折誤差であったが，5症例が±1～1.5Dの屈折誤差を認めた．角膜細胞減少率は4.2±8.1%と明らかな減少は認めなかった．術中合併症として前嚢切開不連続症例を3例3眼，超音波乳化吸引中にクラッツを生じた症例を1例1眼，後嚢破損を生じた症例を1例1眼に認めた．術後合併症として網膜剥離を6例7眼に認め，全症例ともアトピー白内障の症例であった．

【結論】若年者白内障手術は術後良好な視力改善を得られるが，アトピー性白内障が多く，術後網膜剥離のリスクが高いため注意深い経過観察が必要である．