気管支鏡検査時の安全性の確保および臨床応用

未梢肺病変の組織採取に用いるラジアルプローブ型 EBUS（EBUS-GS 使用）のエコー画像の周波数スペクトラム解析を行った。肺癌 45 検体，良性病変 26 検体の検討では、両者に明らかな周波数スペクトラムの相違を認め， 本解析が診断補助に有用である可能性が示唆された（Respirology 2019;24:1005-1010）
気管支鏡検査におけるミダゾラムの有用性と安全性を前向き無作為試験で検討した結果、検査中の低酸素血症は有意に高頻度であったが、気管支鏡検査に対する忍容性は高かった（J Bronchology Interv Pulmonol 2016;23:106-11）。鎮静剤を用いた気管支鏡検査の安全性確保のために、呼気 CO2 モニターが有用かどうかを評価した。呼気 CO2 モニターはミダゾラムを使用しながらの気管支鏡検査における呼吸停止の頻度上昇、持続時間延長を明らかに示せることが示唆された（Respiration 2018;96:355-362）。

【気管支鏡】

1. Omori S, Takiguchi Y, Hiroshima K, Tanabe N, Tatsumi K, Kimura H, Nagao K, Kuriyama T. Peripheral pulmonary diseases: Evaluation with endobronchial US – Initial experience. Radiology 2002;224:603-608.

2. Kitamura A, Takiguchi Y, Kurosu K, Takigawa N, Saegusa F, Hiroshima K, Nakajima T, Tanabe N, Nakatani Y, Yishino I, Tatsumi K. Feasibility of cytological diagnosis of sarcoidosis with endobronchial US-guided transbronchial aspiration. Sarcoidosis Vasc Diffuse Lung Dis 2012;29:82-89.

3. Sakairi Y, Saegusa F, Yoshida S, Takiguchi Y, Tatsumi K, Yoshino I. Evaluation of a learning system for endobronchial ultrasound-guided transbronchial needle aspiration. Respir Investig 2012;50:46-53.

4. Haga T, Fukuoka M, Morita M, Cho K, Tatsumi K. Indications and complications associated with fiber optic bronchoscopy in very elderly adults. J Am Geriatr Soc 2014;62:1803-5.

5. Haga T, Fukuoka M, Morita M, Cho K, Tatsumi K. A prospective analysis of the efficacy and complications associated with deep sedation with midazolam during fiberoptic bronchoscopy. J Bronchology Interv Pulmonol 2016;23:106-11.

6. Ishiwata T, Tsushima K, Fujie M, Suzuki K, Hirota K, Abe M, Kawata N, Terada J, Tatsumi K. End-tidal capnographic monitoring to detect apnea episodes during flexible bronchoscopy under sedation. BMC Pulm Med 2017;17:7.

7. Ishiwata T, Tsushima K, Terada J, Fujie M, Abe M, Ikari J, Kawata N, Tada Y, Tatsumi K. Efficacy of end-tidal capnography monitoring during flexible bronchoscopy in nonintubated patients under sedation: A randomized controlled study. Respiration 2018;96:355-362.

8. Fujimoto K, Ishiwata T, Kasai H, Terada J, Shionoya Y, Ikari J, Kawata N, Tada Y, Tsushima K, Tatsumi K. Identification of factors during bronchoscopy that affect patient reluctance to undergo repeat examination: Questionnaire analysis after initial bronchoscopy. PLoS ONE 2018;13:e0208495.

9. Ishiwata T, Abe M, Kasai H, Ikari J, Kawata N, Terada J, Sakao S, Tada Y, Tanabe N, Tatsumi K. Safety of diagnostic flexible bronchoscopy in patients with echocardiographic evidence of pulmonary hypertension. Respir Investg 2019;57:73-78.

10. Katsumata Y, Terada J, Abe M, Suzuki K, Ishiwata T, Ikari J, Takeda Y, Sakaida E, Tsushima K, Tatsumi K. An analysis of the clinical benefit of 37 bronchoalveolar lavage procedures in patients with hematologic disease and pulmonary complications. Intern Med 2019;58:1073-1080.

11. Ishiwata T, Terada J, Nakajima T, Tsushima K, Tatsumi K. Transbronchial evaluation of peripheral pulmonary lesions using ultrasonic spectrum analysis in lung cancer patients. Respirology 2019;24:1005-1010.

12. Ishiwata T, Nakajima T, Terada J, Tatsumi K. A novel biosimulator based on ex vivo porcine lungs for training in peripheral tissue sampling using endobronchial ultrasonography with a guide sheath. J Thorac Dis 2019;11:4152-4158.