

European Respiratory Society Annual Congress 2012

Abstract Number: 3506

Publication Number: P660

Abstract Group: 1.4. Interventional Pulmonology

Keyword 1: Bronchoscopy **Keyword 2:** Imaging **Keyword 3:** Lung cancer / Oncology

Title: Confocal laser endomicroscopy in diagnosis of solitary and multiple pulmonary nodular infiltrates

Dr. Olesya 22145 Danilevskaya danless@mail.ru¹, Dr. Dmitry 22146 Sazonov dvsazonov@mail.ru¹, Prof. Fedor 22147 Zabozlaev fzab@mail.ru MD², Prof. Aleksandr 22662 Averyanov averyanovav@mail.ru MD³, Ms. Anastasiya 22663 Sorokina sorokina_ana@mail.ru², Mrs. Anna 22670 Sotnikova averyanovav@mail.ru³, Dr. Nikolay 22671 Urazovsky averyanovav@mail.ru⁴, Prof. Oleg 22672 Kuzovlev averyanovav@mail.ru MD⁵ and Prof. Oleg 22673 Shablovsky averyanovav@mail.ru MD⁶. ¹ Endoscopy, Federal Research Clinical Center of the Specialized Types of Health Care and Medical Technologies FMBA of Russia, Moscow, Russian Federation ; ² Pathologic Anatomy, Federal Research Clinical Center of the Specialized Types of Health Care and Medical Technologies FMBA of Russia, Moscow, Russian Federation ; ³ Pulmonology, Federal Research Clinical Center of the Specialized Types of Health Care and Medical Technologies FMBA of Russia, Moscow, Russian Federation ; ⁴ Thoracic Surgery, Federal Research Clinical Center of the Specialized Types of Health Care and Medical Technologies FMBA of Russia, Moscow, Russian Federation ; ⁵ Head, Federal Research Clinical Center of the Specialized Types of Health Care and Medical Technologies FMBA of Russia, Moscow, Russian Federation and ⁶ Surgery, Federal Research Clinical Center of the Specialized Types of Health Care and Medical Technologies FMBA of Russia, Moscow, Russian Federation .

Body: Background. Probe-based confocal laser endomicroscopy (pCLE) is a new method used during bronchoscopy by means of special miniprobe Alveoflex and based on the visualization of intraalveolar structures which possess autofluorescence. Till now the only lung pathology for which specific diagnostic signs are established at pCLE is alveolar proteinosis. Aim: to compare the visual signs of a healthy and pathologically changed lung tissue received at pCLE in patients with infiltrative and local lung nodules with the proved histologic diagnosis. Methods: 36 patients have been undergone multispiral CT to detect the focuses of lung lesions. pCLE has been performed to each patient first in healthy segments, and then in the zone of abnormal findings with photofixing of intraalveolar images and semi-quantitative score. Morphologic diagnosis was ensured by video assisted thoracoscopic lung biopsy. Results: Patients diagnoses have been as follows: sarcoidosis (17), central lung cancer (1), pneumonia (5), usual interstitial pneumonia (1), bronchioloalveolar carcinoma (BAC) (4), other peripheral tumors (8). In all patients with BAC the changes of an intraalveolar image in comparison with healthy segments have been revealed. It has been structural disorganization of collagen and elastic fibres. For other diseases we haven't found any significant difference between healthy and target affected alveoli. Conclusions. pCLE could be used as an additional method of noninvasive diagnostics of BAC in vivo.