Estimation and identification of Low attenuation areas (LAA) in lung obtained from CT imaging data

○ Masaki Akiyama¹, Kurefu Okamoto², Kenji Ueno², Masataka Kitama¹, Toshitsugu Sugawara¹, Kazuyuki Kimura¹

¹Division of Biomedical Engineering, Graduate School of Hokkaido University of Science,
²MEDICAL CORPORATION SEISHINKAI OKAMOTO HOSPITAL

The low attenuation areas (LAA) in lung are understood one of the important factor for promoting Chronic Obstructive Pulmonary Disease (COPD). Mortality of COPD has been increasing, and World Health Organization (WHO) expects it to become the third leading cause of death in the world by 2030, up from its current tenth place. In this present report, we studied the estimating procedure for confirm the primary changes of LAA using Computer Tomography (CT) images. Under -950 HU CT areas were scored in CT image, and estimated using Goddard's method. No relationships were confirmed in age and smoking history. The data might be indicated that the other factors of promoting LAA have been existed.