

Progress of Diagnostic Imaging

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The recent history of communication in radiology between Scandinavia including Finland and Japan started in 1990. PACS meetings were held 3 times from 1990 through 1993 and it contributed in the progress of picture archiving and communication system in both sides. In 1993, the Scandinavia Japan Radiological Society was launched and since then, 9 workshops have been held in collaboration with the PACS meeting and the 10th workshop will be held in Tokyo next year. In addition to the workshop, we have mutual exchange program of young radiologists which has brought 8 Scandinavian radiologists to Japan and 28 Japanese radiologists to the Scandinavian institutes.

The content of my lecture includes, 1) computer-assisted automatic diagnosis of lung cancer using custom-developed software to predict the pathological prognostic factors of small peripheral adenocarcinoma, 2) diagnosis and interventional radiology of hepato-cellular carcinoma with multimodality, 3) pulmonary perfusion image with dual energy CT pulmonary angiography, comparable to pulmonary scintigraphy, 4) detection of plaque in the carotid artery with MRI, and 5) computational anatomy, which assists medical diagnosis and interventions, as well as medical education.

Computer assisted diagnostic imaging will further develop to control several kinds of diseases.