Lung cancer screening in Japan

Kurzzusammenfassung: Lung cancer is a leading cause of cancer death in both male and female individuals in Japan. However, non-small cell lung cancer can sometimes be cured if it is found early enough. The goal of screening for lung cancer is to identify the cancer at an early stage so that it can be successfully treated.

In Japan, screening using low-dose computed tomography (LDCT) was initiated in 1993. Sone et al. and the Shinshu University Study Group started LDCT screening using an in-vehicle CT device in Nagano Prefecture in 1996 and reported the results of 3-year repeated screening globally for the first time.

In addition to the academic activities of the Japanese Society of CT Screening (JSCTS), certification of physicians and radiologic technologists by the Japan Accreditation Council for CT Screening founded in 2009 was performed. So far, there are 1,346 certified physicians and 1,250 certified technologists.

In 2009, the JSCTS performed a nationwide survey for LDCT screening among member institutions, and 61 institutions responded. The number of screened participants was 127,897 (79,692 male and 48,205 female individuals), and the positive test rate was 7.2%. Lung cancer was diagnosed in 195, and the detection rate was 152.5/100,000. 164 cases (84.1%) received surgical resection and the number of stage I lung cancer cases was 132 (68%).

The guidelines for observation of solitary pulmonary nodules have also been prepared by the JSCTS. They were revised on the basis of the actual situation in Japan. The fifth edition was published in 2017. In a recent Japanese cohort study, mortality reduction by LDCT screening was even suggested in non-smokers/smokers of <30 pack-years. Sagawa et al. stressed the need for a randomized controlled study to investigate the efficacy of LDCT screening for non-smokers and smokers of <30 pack-years. The JECS Study (The Japanese randomized trial for evaluating the Efficacy of low-dose thoracic CT Screening for lung cancer in non-smokers and smokers of <30 pack-years) is now going.

Nawa et al. reported that LDCT screening participants exhibited a 51% reduction in lung cancer mortality compared with those in the X-ray screening group in Hitachi City, Ibaraki Prefecture. The spread of LDCT screening in Hitachi City has led to a reduction of lung cancer deaths at the population level.

I would like to explain about LDCT screening in Japan.
| 15:00 Uhr | Referent(en): Diederich S |