CT-Guided lung Biopsy in the Detection of Lung Cancer

Student Researcher: Brooke Lininger
Faculty Advisor: Dr. Elaine Halesey Ed., R.T. (R)(QM)(ARRT)

Abstract

This project explains computed tomography(CT)-guided lung biopsies in the detection of lung cancer. The project discusses CT, CT-guided lung biopsies, statistics, steps of the procedure, indications, contraindications, complications, pulmonary nodules, fine vs. core needle, as well as future advancements. Lung cancer is the most common type of cancer in the world. There are many factors that contribute to lung cancer such as smoking or being exposed to smoke. There are also three different types of lung cancer. CT-guided lung biopsies help to diagnose patients who are suspected of having a nodule or mass in their lung. CT-guided lung biopsies are minimally invasive and have high success rates. Generally, the patient will be discharged within a few hours post biopsy. As technology advances, CT-guided lung biopsies are being taken over by robotic bronchoscopies. Robotic bronchoscopies use CT imaging to enhance visualization of lung anatomy, resulting in an accurate resource to diagnose pulmonary nodules.

Keywords: Computed tomography, CT-guided lung biopsy, lung cancer, pulmonary nodule, robotic bronchoscopy