Air Embolism with Electrocardiogram Abnormality after Lung Biopsy

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A 70-year-old man underwent a computed tomography (CT)-guided core needle biopsy for a lung tumor in the prone position (Picture 1). CT revealed air density in the left atrium and atrial appendage (Picture 2). To prevent systemic air embolism, oxygen was administered via a reservoir mask in the supine and head-down tilt position. Right shoulder pain and moderate lower limb weakness were noted. An electrocardiogram (ECG) showed ST-T segment elevation with precordial and inferior leads (Picture 3). He recovered from these symptoms 10 minutes later. Follow-up CT revealed the disappearance of the air density. The ECG findings were unremarkable (Picture 4). His post-biopsy course was uneventful, and he was discharged after two days. His symptoms were likely caused by transient angina pectoris and spinal cord ischemia due to air embolism. ECG abnormalities with air embolism are a rare but significant finding suggesting cardiac ischemia (1). ECG monitoring should also be performed after biopsies.

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Reference