Thomas Jefferson University

Jefferson Digital Commons

September 2020

Following Patients with Severe Coronary Artery Calcifications Detected by Low-Dose CT Scan for Lung Cancer Screening

Amry Majeed
Thomas Jefferson University, amm192@students.jefferson.edu

Christine Shusted
Thomas Jefferson University, christine.shusted@jefferson.edu

Brooke Ruane
Thomas Jefferson University, brooke.ruane@jefferson.edu

Julie Barta
Thomas Jefferson University, julie.barta@jefferson.edu

Follow this and additional works at: https://jdc.jefferson.edu/si_ctr_2022_phase1

Part of the Medicine and Health Sciences Commons

Let us know how access to this document benefits you

Following Patients with Severe Coronary Artery Calcifications Detected by Low-Dose CT Scan for Lung Cancer Screening

Amry Majeed, Christine Shusted, Brooke Ruane, Julie Barta*

Introduction: Recommendations for lose-dose CT screening for lung cancer (LC) targets a population at concomitant risk for coronary disease. Coronary artery calcifications (CAC) are an independent predictor of cardiovascular events among screening patients, and atherosclerotic cardiovascular disease (ASCVD) was the leading cause of death in the National Lung Screening Trial. In this study, we tested the hypothesis that patients with severe CAC undergo more risk factor modification when seen by a cardiologist.

Methods: A chart review assessing patients found to have severe CAC on screening LDCT between January 2018 and April 2019 was conducted. Patient demographics, medical history, and cardiology data were obtained from the electronic medical record.

Results: Of 580 patients who underwent LC screening, forty patients (6.9%) had severe CAC. 70% of these patients (28/40) had ASCVD at baseline. Twenty-three patients (57.5%) were subsequently seen by a cardiologist. Of these patients, 12 (52.2%) were started on or had a dose increase in cardiac medications; 9 (39.1%) underwent stress testing; 12 (52.2%) had an echocardiogram; and 3 patients (13.0%) underwent coronary angiography. Among the 17 patients not seen by a cardiologist, 2 patients (11.8%) had an increase in cardiac medications, and none underwent cardiac procedures.

Discussion: Patients with severe CAC detected on LDCT screening have a high incidence of known ASCVD. Those who are referred to Cardiology undergo procedures and medication changes at a higher rate than patients not seen by a cardiologist. Future

directions should include examining the impact of cardiac interventions on ASCVD mortality in this population.