Acute Exacerbation of Heart Failure in 35-Year-Old Hispanic Female With Premature Coronary Artery Disease Status Post CABG X 4 and Multiple Comorbidities: A Case Report

Nelson Gonzalez MS-III, MPH<sup>1</sup>, Bhargavi Akkineni MS-III<sup>1</sup>

Institution: University of Texas Rio Grande Valley School of Medicine, Edinburg, Tx

Background: Coronary artery disease (CAD) is the leading cause of death in adults worldwide.<sup>1</sup> Although CHD prevalence is highest in adults of middle age and above, it is important to be aware of risk factors in young adults that predispose them to premature CAD and its complications. We present a case of a young Hispanic female with acute exacerbation of heart failure (HF), CAD, and multiple comorbidities.

Case: A 35-year-old Hispanic female with past medical history of CAD status post coronary artery bypass graft (CABG) X 4, HF with reduced ejection fraction (EF) of 40-45%, chronic kidney disease stage 4, type 2 diabetes mellitus, and hypertension presented with shortness of breath for one day. No other associated symptoms. Vitals revealed she was tachycardic (110s) and hypertensive (160s/90s). Physical exam revealed decreased breath sounds. Echocardiogram revealed an EF of 20-25%. The patient was successfully managed with furosemide, isosorbide dinitrate, hydralazine, and fluid restriction.

Conclusions: This is a rare case of premature CAD with multiple complications (CABG X4) in a young female. Approximately 3% of all CAD cases occur in patients less than 40 years old.<sup>2</sup> This prevalence is likely underreported due to young patients exhibiting less symptoms. Risk factors for CAD in young adults, such as smoking, diabetes, hypercholesterolemia, and obesity,<sup>2</sup> should be considered when assessing for CAD in populations with a high prevalence of comorbidities such as the Rio Grande Valley, Tx. Careful observation for these factors can lead to prevention of CAD and its complications.

## References:

1. Centers for Disease Control and Prevention. Underlying Cause of Death, 1999–2018. CDC WONDER Online Database. Atlanta, GA: Centers for Disease Control and Prevention; 2018. Accessed June 13, 2021.

2. Alkhawam H, Zaiem F, Sogomonian R, et al. Coronary Artery Disease in Young Adults. Am J Med Sci. 2015;350(6):479-483. doi:10.1097/MAJ.0000000000000579