Peer Review File
Article information: https://dx.doi.org/10.21037/jtd-24-221

Reviewer A

This is a well written article. However, some important facts are missing. The sample of patients with PH class II is small, 95 which might be a small sample size to adequately power the study. Even though the sample size is small, this study has opened a new avenue which might open door for a large scale study. Diagnostic modality used for the diagnosis of pulmonary hypertension (RHC or echo) is not mentioned. Also it is not clear how we can say that 95 patients had type II PH and not other types of PH. We need to rule out other causes of PH as just because patient had STEMI does not mean patient has type II PH. Hence, it would be worthwhile if we reword the title as impact of PH in general and not type II PH. Also the information about how high the PA pressures were and if higher pressures were associated worse outcomes would be interesting as well. The authors have mentioned PH dichotomously as present or absent. I understand that it was a retrospective cohort study and the authors may not have data on these. In this case, it needs to be mentioned in limitations. That being said, I appreciate the efforts made by the authors to study the effect of PA pressure on outcomes of STEMI

Comment 1: The sample of patients with PH class II is small, 95 which might be a small sample size to adequately power the study. Even though the sample size is small, this study has opened a new avenue which might open door for a large scale study.
Reply 1: We agree with the above comment. However as mentioned in the methods section (Line 120) we included all patients who met the inclusion criteria. The reason why we have a strict inclusion criteria is to increase the accuracy of the diagnosis as much as possible. We are looking into patients with a diagnosis of stable congestive heart failure and as such likely have ventricular dysfucntion with subsequent pulmonary hypertension. We did this because we know selection of cases based on ICD-10 coding can be limited. Future studies with a larger sample size would help further solidify the association between Group II PH and STEMI in CHF patients.
Changes in the text: N/A

Comment 2: Diagnostic modality used for the diagnosis of pulmonary hypertension (RHC or echo) is not mentioned. Also it is not clear how we can say that 95 patients had type II PH and not other types of PH
Reply 2: Unfortunately secondary to the nature of this study, the diagnosis of pulmonary hypertension is based on the ICD-10 code rather than diagnostics such as echocardiogram and right heart catheterization. We are looking into patients with a diagnosis of stable congestive heart failure and as such likely have ventricular dysfucntion with subsequent pulmonary hypertension. We did this because we know selection of cases based on ICD-10 coding can be limited The dataset is deidentified and therefor the authors do not have access to the patients' records to furhter evaluate

whether such diagnostics were done.
Changes in the text: Line 122: Due to the nature of this study, the diagnosis of pulmonary hypertension is based on the ICD-10 code rather than diagnostic tools such as echocardiogram and right heart catheterization. As the patient dataset is de-identified, the authors do not have access to the patients' records to further evaluate whether such diagnostic procedures were performed.
Changes in the text: N/A

Comment 3: We need to rule out other causes of PH as just because patient had STEMI does not mean patient has type II PH. Hence, it would be worthwhile if we reword the title as impact of PH in general and not type II PH.
Reply 3: As mentioned in the above replies, the authors are making an effort to make up for the limitations of the case selection process that is based on ICD-10 codes. The authors are specifically looking into group II PH because most patients are older and have comorbidities such hypertension and diabetes. Consequently, the majority of patients with pulmonary hypertension presenting with STEMI would have group II PH. Therefore, labeling the cohort as PH rather than GIIPH would be a misrepresentation of the other subgroups of PH. We added the other subgroups as part of the exclusion criteria. The authors did not find patients with PH other than group II and congestive heart failure admitted with STEMI. This is mentioned in the methods section (Line 130).
Changes in the text: N/A

Comment 4: Also the information about how high the PA pressures were and if higher pressures were associated worse outcomes would be interesting as well. The authors have mentioned PH dichotomously as present or absent. I understand that it was a retrospective cohort study and the authors may not have data on these. In this case, it needs to be mentioned in limitations.
Reply 4: The reviewer’s comment is appreciated however as mentioned above, secondary to the nature of the NIS dataset, such information is not available. We comment on that in the limitations section (Line 224,225)
Changes in the text: N/A

Reviewer B

Comment 1:
Abstract
- The "Background" section of the abstract should not only outline the study's objective but also provide information about the context underlying the research.
- P <.001 => P <0.001
- Should “P 0.02” be “P=0.02”?
Reply: The abstract has been modified as suggested.

Comment 2: Please review the full terms of STEMI and NSTEMI in the Introduction

section. Please ensure consistency with the definitions of abbreviations throughout the text.
Reply: Revised as suggested.

Comment 3: Please check if it is necessary to add more references in the below sentences since you mentioned “studies” or “some studies”.

184 recruitment of minority races and socioeconomic status. Most research published on PH reflects White participants. Studies have
185 shown that White patients had a significantly lesser degree of socioeconomic distress than their Black counterparts (9). This is

221 Studies investigating the pathophysiology of this occurrence have yet to show consistent results. Still, some have shown evidence of
222 both decreased maximal tension (21) and decreased slow twitch fibers in the diaphragm, which correlated with maximal inspiratory
223 pressure.(20) ↵

Reply: The text has been revised to avoid confusion.