

Category : **Cardiovascular: Other**

## **A14 - Significance of admission troponin i in critically unwell covid-19 patients**

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### **Introduction:**

Troponin I (TnI) is a suggested predictor of mortality in patients with COVID-19 [1,2]. Studies highlight differences in mortality and intensive care unit (ICU) admissions between sexes [3]. We aimed to assess correlation between ICU admission TnI measurements and mortality, acute cardiac events, and abnormal echocardiogram (ECHO) results in patients with COVID-19. We hypothesise with increasing admission TnI, subsequent rates of mortality and cardiac events will increase.

### **Methods:**

A retrospective analysis of online notes of 48 COVID-19 ICU patients between March and July 2020.

99<sup>th</sup> percentile upper limit of normal range was used for TnI. Admission TnI levels and subsequent outcomes were compared between patients. Proportions for categorical variables were compared using the Fisher exact test in Microsoft Excel.

### **Results:**

41 patients had admission TnI measured. The patient male:female ratio was 31:10.

The median patient age was 58. Peak admission TnI levels for patients were 8662.9 for men and 27.9 for women.

Median admission TnI was 18.84 for males and 7.75 for females.

The interquartile ranges between admission TnI were 20.05 and 4.625 for males and females respectively. Figure 1 shows the percentage of patients against measured outcomes, with admission TnI.

### **Conclusion:**

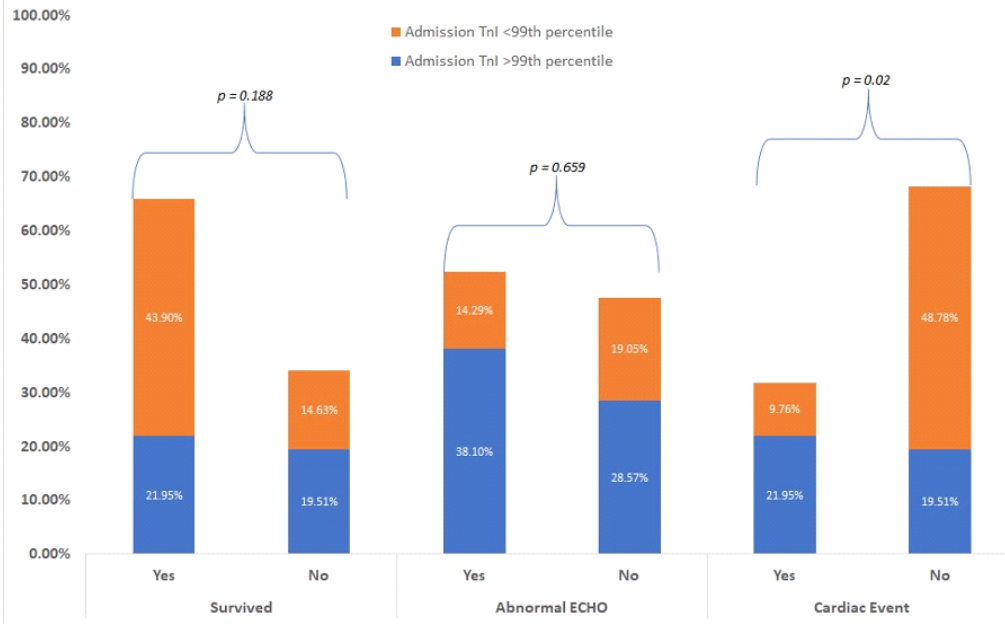
This small study contributes to the body of evidence that supports TnI as an indicator for outcomes in COVID-19 patients. Those with a high admission TnI have statistical significance with cardiac events during their ICU stay. There is a trend towards a higher admission TnI being associated with higher mortality, although there was no statistical significance.

### **References:**

1. Nie S et al. *Circulation* 142:608–610, 2020
2. Du R et al. *European Respiratory Journal* (in press) 2020
3. Gebhard C et al. *Biology of Sex Differences* 11:29, 2020

### **Image :**

Figure 1: All Patient Outcomes



Percentage of patients against measured outcomes, with admission TnI