Reviewer’s report

Title: Epidemiology and risk factors of patients with types of Acute Coronary Syndrome presenting to a tertiary care hospital in Sri Lanka

Version: 1 Date: 08 Jul 2019

Reviewer: Larisa Burke

Reviewer's report:

Overall

Manuscript describing demographic and risk factors differences by type of ACS diagnosis for ACS patients recruited in Sri Lankan hospital. Manuscript provides good overview of traits of this population and good discussion comparing findings to past research and to other regional trends. Some grammar editing needed (sentence structure, prepositions, incorrect capitalization needs to be corrected in many places, discussion often uses "commoner" or "commonest" when "more common" would read more smoothly, etc)

Abstract

"male gender was strongly associated with ACS compared to females (P < 0.001)" - the sample didn't have any non-ACS patients so I don't know how this could be determined - a chi-square test of ACS vs non-ACS and male vs female couldn't be done. Don't know what statistical test this p-value is referring to. The results from figure 1 could be added instead: male sex showed higher association with all three type of ACS with a P value of 0.001.

Abbreviations should be spelled out when first used (example: HT).

History of ACS/stable angina - p-value <0.001 in abstract. =0.001 in table 1.

Last two sentences: would be more accurate to say "patients with NSTEMI or Unstable Angina had higher rates of hypertension and were more likely to have a history of ACS or stable angina than STEMI patients. Patients with NSTEMI were more likely than patients with STEMI or UA to have dyslipidemia."

Introduction

Sentence starting "Acute coronary syndrome (ACS) includes..." should start paragraph on ACS, not end the paragraph on ischemic heart disease.

Data Collection
Write out acronym for MBBS

Data Analysis

For continuous variable t-tests or one-way anova test are most commonly used for continuous variables. Were these used to compare continuous variable (comparing mean age)? This is not mentioned.

Results

First paragraph - how was gender difference for continuous variable of age tested?

"male gender was strongly associated with ACS compared to females (P < 0.001)" - remove? As stated, don't know how this could have been tested.

2nd paragraph - The extra paragraph on age and figure 2 don't seem necessary as there is no difference in age between the diagnosis groups and that is already shown in table 1. One sentence on this in the 1st paragraph seems sufficient.

Paragraph 3 - values for epigastric pain in paragraph don't match table - for UA paragraph is wrong. For NSTEMI the table is wrong.

Paragraph 5 - p-value for past history of ACS/stable angina in paragraph doesn't match table 1.

Paragraph 6 - If people with a family history of ACS = 99 people and a people with family history of stroke=37 people, the number of people with history of both ACS and stroke can't be 117 people (more than was in either group). Please clarify.

Discussion

Paragraph 6 - please replace first sentence with figure 1 result : male sex showed higher association with all three type of ACS with a P value of 0.001.

Paragraph 8 - Can this sentence be moved to the beginning of paragraph which discusses rate of hypertension by country?

"ACCESS group of investigators reported a higher prevalence of HT(STEMI 78 %, NSTEME-ACS 87 %) in ACS patients in other developing countries compared to Sri Lanka and India"

Last paragraph well written and good summary

Conclusion
Well summarized

Table 1 / all manuscript

Number of decimal places in table and text should be consistent. Generally P values are listed with 3 decimal places but this varies. Most statistical values have 1 decimal place, some have 2 in table and text.

Figure 3

Unstable angina spelled wrong. Other figures have "UA"

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
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Yes

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Please indicate the quality of language in the manuscript:

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