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IN HOSPITAL OUTCOMES AND ACS

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Abstract:

Objective: *Frequency of in hospital outcomes in admitted with ACS.* ***Methodology;*** *This was a cross sectional study that was carried out at PIMS hospital, Islamabad during September 2015 to September 2016. In this study the cases of both genders with age more than 30 years were selected via Non probability consecutive sampling. These cases were admitted with standard AHA criteria of acute coronary syndrome bases on chest pain and ECG changes along with cardiac enzymes and were assessed for various clinical outcomes till their discharge or death. The cases with co morbid renal or hepatic failure or those that had pre hospital CPR, were excluded form this study.* ***Results;*** *In the present study there were total 100 cases, out of which 57 (57%) were males and 43 (43%) females. The mean age of the subjects was 54.11±10.35 years and mean duration of symptoms of ACS was 14.67±3.44 hours. The most common complication was arrhythmia noted in 41 (41%) of the cases, followed by hear failure in 15% cardiogenic shock in 13% and mortality in 4% of the cases.* ***Conclusion;*** *ACS can result in multiple complications during hospital stay and the most common one is arrhythmias.*

Key words; *Acute coronary syndrome, Mortality, Shock, Arrhythmias*

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INTRODUCTION:

Chest pain is a symptom covering a number of the underlying diseases and need multiple non invasive and invasive investigations to rule out some worrisome clinical entities and acute coronary syndrome (ACS) is one of the most feared one as it has a high degree of mortality and morbidity if left untreated..[1] It can broadly be divided into myocardial infarction and angina pectoris. [2-3]

A long list of predisposing risk factors can lead to this and precludes, male gender, higher age, smoking, DM, HTN, dyslipidaemia and family history of ischemic heart disease. The data has shown that a wide arrya of clinical compilations can be observed in the initial post infarction phase and for which there are both in and out hospital outcome surveillance. The major studied in hospital complications are re infarction, heart failure, shock, arrhythmias, mortality etc. [4-6]

OBJECTIVE:

Frequency of in hospital outcomes in admitted with ACS.

MATERIALS AND METHODS:

This was a cross sectional study that was carried out at PIMS hospital, Islamabad during September 2015 to September 2016. In this study the cases of both genders with age more than 30 years were selected via Non probability consecutive sampling. These cases were admitted with standard AHA criteria of acute coronary syndrome bases on chest pain and ECG changes along with cardiac enzymes and were assessed for various clinical outcomes till their discharge or death. The cases with co morbid renal or hepatic failure or those that had pre hospital CPR, were excluded form this study.

Statistical analysis;

SPSS version 22.0 was used for data analysis and assessment The quantitative and qualitative variables were presented as mean and SD and frequencies and percentages respectively.

RESULTS;

In the present study there were total 100 cases, out of which 57 (57%) were males and 43 (43%) females. The mean age of the subjects was 54.11±10.35 years and mean duration of symptoms of ACS was 14.67±3.44 hours (table 1). The most common complication was arrhythmia noted in 41 (41%) of the cases, followed by hear failure in 15% cardiogenic shock in 13% and mortality in 4% of the cases (table 2).

Table 01. Study variables

	Mean	Range
Age	54.11±10.35	30-80 years
BMI	30.13±3.78	23-41
Duration of ACS	14.67±3.44	1-36 hours

Table 02. In hospital outcomes

Outcomes	Number	%age
Cardiogenic shock	13	13%
Heart failure	15	15%
Recurrent infarction	2	2%
Mortality	4	4%
Arrhythmia	41	41%

DISCUSSION:

ACS is a highly morbid entity and can lead to various complications during initial phase of hospital stay; hence knowing the possibility, burden and evidence based data regarding these can lead to better preparation to combat these entities.

In the present study, out of the various complications noted, the most common complication was arrhythmia noted in 41 (41%) of the cases, followed by hear failure in 15% cardiogenic shock in 13% and mortality in 4% of the cases. These results were in association with the findings of the previous studies where more or less the similar results were noted with slight variations.

Kunadian V et al carried out a randomized controlled trial where they assessed for various outcomes in cases with ACS who either had anemia at presentation and those with normal haemoglobin concentration to look for in hospital outcomes and iot was seen that cardiac ischemia was noted in 6.6%, the incidence of bleeding was in 7.3% mortality in 2% of the cases with normal haemoglobin which was much lower as compared to anaemic cases. In another study by Greenberg G described re infarction or ischemia in 7.7% and death in 7.3% of the cases.[7-8] The data from another similar protocols study revealed the incidence of heart failure in 20%, re infarction in 20%, shock in 9.4%, death were noted in 8.17% of their subjects admitted with ACS.[9]

The results from other studies have also supported that the most common complication was arrhythmias and the number varied because of the variability of the inclusion criteria. The most common arrhythmia was premature ventricular contractions (PVCs) which was also highest in the present study.[11-12] In another study form Pakistan described that in hospital incidence of cardiogenic shock was 9.4%, which was around 13% in the present study.[9] The results from other studies have show mortality rate up to 10% as compared to 4% in present study.[13-14]

CONCLUSION:

ACS can result in multiple complications during hospital stay and the most common one is arrhythmias.

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