A Case Study of Clinical and Etiological Profile on Patients with Acute Heart Failure

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ABSTRACT
To study the Clinical and Etiological profile of patients with Acute Heart Failure, with prospective evaluation of hospital outcome in 100 subjects attending the Casualty department, Medicine department, and Cardiology department of ASRAM General Hospital, Eluru during the period DECEMBER 2014 to JULY 2016. To study the outcome of patients with acute heart failure.

INCLUSION CRITERIA:
This study recruited patients admitted to hospital (Emergency department; General medicine and Cardiology department) with dyspnoea and verification of heart failure (new-onset heart failure vs ADCHF) based on:

a) Symptoms (Dyspnoea) and Signs (rales, hypotension, hypoperfusion, right ventricular heart failure) of heart failure.

b) Lung congestion on X-ray.

EXCLUSION CRITERIA:
Other causes of acute shortness of breath like Acute COPD exacerbation, Pneumothorax, Acute Bronchial asthma, Pleural effusion, Metabolic Acidosis, Non-Cardiogenic causes of pulmonary oedema like sepsis, Acute Pancreatitis, Cirrhosis, Chronic Kidney disease etc were not included in the study.

Results:
The data are presented as absolute numbers, percentages, means and medians. Results were analyzed and compared with previous trials.

Risk Factors:
In our present study, Diabetes Mellitus and Hypertension are the most common risk factors associated with AHF, seen in 60% and 68% of patients respectively.

Other common risk factors include Smoking, Alcohol, Dyslipidemia, Previous History of CAD, Family History of CAD seen in 54%, 46%, 34%, 36% and 56% patients respectively.

Table 14: Risk Factors for AHF

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes Mellitus</td>
<td>68</td>
</tr>
<tr>
<td>Hypertension</td>
<td>60</td>
</tr>
<tr>
<td>Smoking</td>
<td>54</td>
</tr>
<tr>
<td>Alcohol</td>
<td>46</td>
</tr>
<tr>
<td>Dyslipidemia</td>
<td>34</td>
</tr>
<tr>
<td>Previous History of CAD</td>
<td>36</td>
</tr>
<tr>
<td>Family History of CAD</td>
<td>56</td>
</tr>
</tbody>
</table>

DISCUSSION
This study specifically targeted AHF patients.

In this study, only patients hospitalized due to AHF either denovo AHF or ADCHF were included and classified according to the current clinical guidelines on AHF by ECS.

Coronary artery diseases, Diabetes and Hypertension being most common and often coexisting.

Diabetes Mellitus(68%) is far more common when compared other studies. This may be attributable to the higher prevalence of Diabetes Mellitus in our Geographical area, as the study was done in Southern INDIA where Diabetes Mellitus is an epidemic.
In our present study, Diabetes Mellitus and Hypertension are the most common risk factors associated with AHF, seen in 68% and 60% of patients respectively. Acute coronary syndrome was the major precipitating factor in patients with Denovo AHF.

CONCLUSION
This study provides information on etiological characteristics of patients with AHF.

ACS (Diabetes Mellitus, Hypertension) was the most common etiology for AHF in the present study indicating the emergence of Coronary Artery Disease as a major non communicable epidemic.

The new onset of heart failure mostly attributed to acute coronary syndromes

The emergence of Coronary Artery disease as a major etiological factor of AHF in developing country like INDIA in contrast to valvular heart disease which was once the major etiological factor, highlights the impact of westernization, changes in lifestyle and increase in co-morbidities like diabetes and hypertension.

REFERENCES:
1) Mendez GF, Cowie MR. The epidemiological features of heart failure in developing countries: a review of the literature. Int J Cardiol 2001;80:213–9