

A Comparative Study of Clinical and Angiographic Profile in Acute Coronary Syndrome in Age Group of Below and Above 40 Yrs in South Indian People

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Abstract

Objective: The purpose of the present study was to assess the frequency, risk factors, presenting symptoms, treatment in-hospital outcomes of young and older ACS patients.

Method: The study had 654 patients presented with the first episode of ACS were analysed in aged below 40 years and over 40 years treated in Cardiology dept.

Results: Out of 654 cases of ACS patients, unstable anginas were 94 cases, STEMI cases were 427 and NSTEMI cases were 133. Out of 654 ACS cases, 65 cases were below 40 years and 589 cases were above 40 years. STEMI was most common in younger age (93.8%) than older age (62.1%). Overall most common symptom was chest pain which was equally distributed in both age. Smoking in younger age group was 64.4%. A family history of CAD in younger age was 35.6%. Lipoprotein (a) level was higher in younger age and hsCRP levels were higher in older age. Overall SVD of LAD was more common in younger age than older age. RCA was commonly involved in older age. In all ACS patients, Minor CAD was common and TVD was least common in younger age. In the older age, two vessels CAD was common.

Conclusion: ACS common in male than female. Most common symptom was breathlessness. Lipoprotein (a) was higher in younger, hsCRP was higher in older age.

Key words – STEMI, ACS, Novel risk factors, HsCRP, Lipoprotien(a), Homocysteine, CAG

Introduction

There is a paucity of data regarding the prevalence of risk factors and angiographic profile in young Indian ACS patients. Moreover, the novel cardiovascular risk factors (CVRFs) like homocysteine (Hcy), lipoprotein(a) (Lp[a]), high-sensitivity C-reactive protein (hsCRP) are less well studied in Indian ACS patients. The objective of this study was to represents the clinical profile, prevalence of risk factors and distribution of coronary

artery stenosis in acute coronary syndrome (ACS) patients of South Indian population of age above and below 40 years.

Method

The study had 654 patients presented with the first episode of ACS were analysed with different risk factors in aged below 40 years and over 40 years treated in Cardiology dept.

Findings: Out of 654 cases of ACS patients, unstable anginas were 94 cases, STEMI cases were 427 and NSTEMI cases were 133. Out of 654 ACS cases, 65 cases were below 40 years and 589 cases were above 40 years. STEMI was most common in younger age (93.8%) than older age (62.1%). Overall most common symptom was chest pain which was equally distributed

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in both age. Smoking in younger age group was 64.4%. A family history of CAD in younger age was 35.6%. Lipoprotein (a) level was higher in younger age and hsCRP levels were higher in older age. Overall SVD of LAD was more common in younger age than older age. RCA was commonly involved in older age. In all ACS patients, Minor CAD was common and TVD was least common in younger age. In the older age, two vessels CAD was common.

Discussion

Out of 654 cases of ACS patients, unstable anginas were 94 cases, STEMI cases were 427 and NSTEMI cases were 133. Out of 654 ACS cases, 65 cases were below 40 years and 589 cases were above 40 years. STEMI was most common in younger age (93.8%) than older age (62.1%). In C N Majunath *et al* 2015¹, this study showed mean age 49.39+/- 10.55 years. In Jayesh prajapathi *et al*, in Gujarat in 2014², this study showed mean age in younger age group (<40 years) was 34.69 +/- 4.55 years and in older age group (>40 years) was 56.18 +/- 8.72 years, this findings were comparable to present study. Mean age presentation seen in this study was similar to the studies conducted by Sharma *et al* 2014³ in Bengaluru and Hosseini SK *et al*⁴. 2011. Overall most common symptom was chest pain which was equally distributed in both age, more common in younger patients, this finding comparable with studies like Sricharan K.N. *et al*.⁵ study in Karnataka, Sunita Tiwari *et al*⁶ study in Lucknow. In C N Majunath *et al* 2015¹, this study showed chest pain is most common clinical presentation in both younger and older age group which was contradictory with present study. Clinical presentation in present study is comparable to study done by Bhattacharjee P *et al*. 2014⁷. Smoking in younger age group was 64.4%. Prevalence of smoking in study is comparable to studies like Jayesh prajapathi *et al*, in Gujarat in 2014², C N Majunath *et al* 2015¹, Hosseini SK *et al*. 2011⁴, Bhattacharjee P *et al*. 2014⁷, Yunyun *et al* in China 2014⁸. A family history of CAD in younger age was 35.6%. This clinical finding was comparable to studies like Jayesh prajapathi *et al*, in Gujarat in 2014², Wiwun Tungsubutra *et al*. in 2007 in *Bangko*⁹, and contradictory with study by Bhattacharjee P *et al* 2014⁷. Lipoprotein (a) level was higher in younger age and is comparable to studies like Bhattacharjee P *et al*. 2014⁷, Jayesh prajapathi *et al*, in Gujarat in 2014² and 2015², hsCRP levels were higher in older age Elevated level of hsCRP in older age group in present study is contradictory finding as compare to

studies like Jayesh prajapathi *et al*, in Gujarat in 2014² and 2015² in which hsCRP levels were non-significantly higher among younger patients. Elevated level of hsCRP in older age group in present study is comparable studies like Bhattacharjee P *et al*. 2014⁷, Badran *et al*¹⁰. Overall SVD of LAD was more common in younger age than older age. RCA was commonly involved in older age. In all ACS patients, Minor CAD was common and TVD was least common in younger age. In the older age, two vessels CAD was common.

Conclusion

ACS common in male than female. Most common symptom was breathlessness. Lipoprotein (a) was higher in younger, hsCRP was higher in older age. SVD of LAD was a most common finding by CAG, in younger and multivessel disease common older age.

Conflict-of-Interest Statement

Public trust in the peer review process and the credibility of published articles depend in part on how well conflict of interest is handled during writing, peer review, and editorial decision making. Conflict of interest exists when an author (or the author's institution), reviewer, or editor has financial or personal relationships that inappropriately influence (bias) his or her actions (such relationships are also known as dual commitments, competing interests, or competing loyalties). These relationships vary from those with negligible potential to those with great potential to influence judgment, and not all relationships represent true conflict of interest. The potential for conflict of interest can exist whether or not an individual believes that the relationship affects his or her scientific judgment. Financial relationships (such as employment, consultancies, stock ownership, honoraria, paid expert testimony) are the most easily identifiable conflicts of interest and the most likely to undermine the credibility of the journal, the authors, and of science itself. However, conflicts can occur for other reasons, such as personal relationships, academic competition, and intellectual passion.

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Ethical clearance – Ethical clearance obtained before start this study.

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