

Percutaneous Coronary Intervention in Elderly: It is Never Too Late!

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Globally, the population is increasing. As per the estimates of the World Health Organization (WHO), the proportion of the population aged over 60 years will double from 11% in 2002 to 22% by 2050.¹ By the year 2021, it is estimated that the proportion of over 60 years population is expected to increase to 10.7% in India.^{2,3} Thus, keeping pace with the increase in world population, the proportion of elderly population is also increasing globally. Consequent to increase in the life expectancy with increasing aging, a significant increase in the burden of noncommunicable diseases, coronary artery disease (CAD) is also increasing. CAD has emerged as a major cause of morbidity and mortality in elderly subjects.⁴ It is common in present-day clinical practice to encounter an increasing number of elderly people who present with chronic stable angina and acute coronary syndrome and who require coronary revascularization, either by coronary artery bypass grafting (CABG) or percutaneous coronary intervention (PCI). Unlike in the young, or the middle aged, the elderly have several concurrent comorbid conditions. Further, the elderly are frail and in spite of being afflicted with severe CAD, in view of their age, they are not considered for coronary revascularization procedures. All these affect the outcome of coronary revascularization procedures in the elderly. While some studies^{5,6} have attempted to identify risk factors for mortality and outcome in elderly patients who had undergone CABG, sparse data are available with regard to assessing the predictors for major adverse cardiac events (MACE) following PCI in elderly patients.

The study by Ramakrishna et al⁷ featured in the current issue of the journal attempts to study the various predictors of long-term MACE in the elderly patients undergoing elective PCI. The authors⁷ retrospectively reviewed the case records of 355 elderly patients (247 males, aged ≥ 70 years) who underwent elective PCI during the period 2008 to 2018. In the one-year follow-up, MACE had occurred in 24/355 patients

and 6/24 patients had died (3 had single vessel disease, and the other 3 had multivessel disease). Univariate analysis and multivariable analysis (logistic regression) showed that diabetes mellitus was an independent predictor of occurrence of MACE and death. The authors concluded that PCI was a safe and effective method of coronary revascularization in elderly subjects. They also observed that that presence of risk factors like diabetes mellitus can predict one-year MACE in elderly subjects.

The study⁷ addresses an important question of occurrence of MACE and death following PCI, as PCI is currently considered the preferred method for revascularization in the elderly.⁹ Importantly, the study provides useful information not only on the short-term outcomes, but also regarding the one-year outcomes in elderly patients who have undergone PCI, an area where published literature is sparse. Given that India is emerging as the diabetes mellitus capital of the world,⁸ the observation documented in the present study regarding the importance of diabetes mellitus is an independent predictor of poor outcome in elderly patients undergoing PCI and a warning sign.

In this single-center study conducted over a decade, the authors⁷ do not specify the sample size calculation and justification. So, whether the study⁷ is adequately powered to answer the research question is not clear. Further, the analysis of extent of glycemic control among diabetes mellitus patients with and without MACE, and survivors and non-survivors, would also have been helpful.

The observations from the present study⁷ suggest that it would be prudent to screen elderly subjects with CAD for diabetes mellitus. The study⁷ also provides data supporting the benefits of instituting PCI early among elderly patients.

Conflict of Interest

None declared.

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