

Current Status of Publications of Cardiovascular Interventions in Iran; a PubMed-Based Study

Dear Editor,

Percutaneous coronary intervention (PCI) and peripheral artery intervention are two substantial methods of revascularization with approved efficacy in the treatment of coronary and peripheral artery disorders. Given the existence of a large number of interventional cardiologists and catheterization labs in Iran, the present study analyzed the background and current status of PCI, peripheral artery intervention, and other cardiovascular interventions in Iran based on PubMed-indexed publications.

PubMed searches revealed a total of 17 original articles and 26 case reports relevant to the cardiovascular interventions had been published until the end of 2010. Such a low number of PubMed-indexed original articles on the PCI, peripheral artery intervention and other cardiovascular interventions indicate that the status of publications in these fields is not satisfactory in Iran.

The status of publication of original articles on PCI with acute and midterm follow-ups by investigator in Iran is promising, however, efforts should be made to conduct and publish studies involving long-term follow-ups. The only PubMed-indexed original article compared PCI with drug-eluting stents versus bare metal stents, showed that the rate of major adverse cardiac events and restenosis was similar to previous studies.¹ Only one PubMed-indexed article from Iran reported results in regards to interventions on proximal left anterior descending and left circumflex coronary arteries.² The outcomes of that study were comparable to those of the previous ones. As far as we know, various techniques of angioplasty involving proximal part of coronary arteries and left main trunk lesions are being performed in Iran, but internationally-indexed data bases are silent on Iranian experience. Whether or not the Iranian experience can't compete with internal international experiences needs to be investigated.

Percutaneous coronary interventions are being performed on a daily basis in various cities of Iran, mainly the capitals of provinces. However, the published articles are mainly from the city of Tehran, the capital city. To have a general overview about PCI outcomes in Iran, contribution of all Universities of Medical Sciences and private centers is necessary.

Our search of PubMed revealed no article comparing PCI with coronary artery bypass grafting (CABG). However, there are several centers of CABG in Iran; therefore, studies comparing PCI with CABG can represent a sizable portion of experience from the country. Especially, investigations involving cases with controversial indications of PCI versus CABG should be performed in Iran's population.

We could only find one study on the outcomes of emergency PCI in Iran.³ The success rate of angioplasty in that study (95%) was similar to that in other studies. Given the crucial role of emergency PCI in the salvage of myocardium, and the availability of catheterization labs in several centers in different parts of the country, it is not unreasonable to suggest evaluating the outcomes of emergency PCI and relevant imperative door to needle time in future investigations.

Three reports from Iran described the satisfactory outcomes of angioplasty of coarctation of aorta (CoA) in 39 patients.⁴⁻⁶ However, further studies on long-term follow up of the patients subjected to angioplasty of CoA as well as comparisons with other currently- practiced surgical methods of CoA repair are required.

The outcomes of cervicocerebral artery angioplasty in Iran are remarkably interesting. The results of a study by Ghandehari et al.⁷ which used a sizable number of patients (n=1467), showed a better cumulative stroke and death rate (3.2%) than those reported by other studies. It is of importance that most of the investigations of cervicocerebral artery angioplasty in Iran have been reported by neuro-interventionists. Considering the fact that cardiac interventionists in Iran do cervicocerebral artery angioplasty as well, future investigations can focus on comparing the outcomes of angioplasty procedures performed by neuro-interventionists or cardiac interventionists.

In addition to PCI, percutaneous transluminal mitral commissurotomy (PTMC) is being performed in several centers in Iran, but we could find no PubMed-indexed original article on the subject. The only PubMed-indexed study on percutaneous transluminal valvuloplasty by Sadr-Ameli and colleagues reported satisfactory late outcomes for balloon pulmonary valvuloplasty.⁸

Investigators in Iran have done a much better job at publishing PubMed-indexed case-reports. Several case-reports on the peripheral artery intervention procedures have shown the interventionists'

expertise in the management of complicated patients in Iran. They have also shown many adverse outcomes in the subjects of the reports.

In conclusion, we believe that multi-center studies should be designed to evaluate the outcomes of several PCI, peripheral artery intervention, and valvuloplasty procedures in Iran.

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Received: 19 April 2011

Revised: 22 May 2011

Accepted: 19 June 2011

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