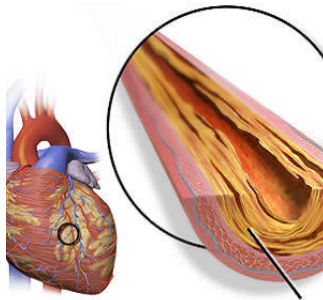

Is PCI Safe for Patients Undergoing TAVR?



Percutaneous coronary intervention (PCI) in addition to transcatheter aortic valve replacement (TAVR) in patients with concomitant severe aortic stenosis and coronary artery disease (CAD) is safe and does not increase procedural risk, according to a systematic review published in the journal *Heart & Lung*.

See Also: [Towards Optimal Management of Left Main Coronary Artery Disease](#)

The use of the TAVR to treat severe aortic stenosis in patients who are at high risk for surgery has expanded in recent years. Studies have shown favourable outcomes of TAVR in low- to intermediate-risk patients as compared with surgical aortic valve replacement (SAVR). However, observational studies evaluating the outcomes of patients undergoing TAVR along with PCI for significant CAD have reported conflicting results, and these studies are few in number and include a small patient population size.

Anurag Bajaj, MD, FACP, from The Wright Center for Graduate Medical Education, Scranton, PA and colleagues aimed to evaluate the safety and feasibility of PCI for CAD in patients undergoing TAVR by performing a meta-analysis. A systemic search of the database was performed. Studies were included comparing TAVR versus TAVR with PCI for significant CAD in patients undergoing TAVR for severe aortic stenosis. The primary outcome was 30-day mortality and secondary outcomes were myocardial infarction, stroke, life-threatening bleeding, major access site vascular complications and renal failure.

A total of nine observational studies with 3,976 patients (mean age: more than 80 years) were included in the analysis. One published abstract was included in the study because arguments were put forth that the exclusion of grey literature such as abstracts from meta-analysis can lead to exaggerated responses to intervention effectiveness.

The researchers found no significant differences in 30-day and six months-one year mortality between TAVR and TAVR with PCI group. There were also no significant differences in myocardial infarction, stroke, and life threatening bleeding and major access site vascular complications between the two groups.

The results show that PCI in addition to TAVR is safe and not associated with increased procedural risk, unlike SAVR, where concomitant CABG ("complete revascularisation") is associated with increased procedural risk, according to the review team.

"The advantages of doing PCI and TAVR as a combined approach is less risk of vascular complications, bleeding, and less risk of worsening of ischaemic and haemodynamic instability during TAVR; however, the potential disadvantage is increased risk of renal failure because of higher contrast volume," the researchers note.

The authors say the main limitations of this meta-analysis are the fewer number of studies, small patient population size in each study, and the observational nature of the studies. "We need multicentre randomised controlled trials to further evaluate the role and safety of PCI in patients with concomitant CAD and severe aortic stenosis and undergoing TAVR," they add.

Source: [Heart & Lung](#)
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