

Contemporary update to PROGRESS-CTO International Registry shows successful outcomes

April 27 2018

A significant update to the PROGRESS-CTO (PROspective Global Registry for the Study of Chronic Total Occlusion Intervention) International Registry was presented today as late-breaking clinical science at Society for Cardiovascular Angiography and Interventions (SCAI) Scientific Sessions 2018. The study includes results of Chronic Total Occlusion Percutaneous Intervention (CTO PCI) for more than 3,000 patients across 20 centers in the United States, Europe, and Russia. The new data from the PROGRESS-CTO registry are representative of contemporary practice and outcomes.

The World Health Organization estimates that 7.3 million deaths around the world are due to [coronary heart disease](#) making it the second cause of death in people under the age of 59 after HIV/AIDS, and reaching the first position in those 60 years and older (*European Heart Journal*). Approximately 20 percent of such patients are known to have a complication from CAD called CTO, or complete blockages of the arteries that have typically been present for more than three months (NCBI). CTO PCI is a minimally invasive procedure that has been evolving with constant improvement of equipment and techniques.

The authors outline contemporary outcomes of CTO PCI by analyzing the clinical, angiographic and procedural characteristics of 3,122 CTO interventions performed in 3,055 patients at 20 centers in the United States (17), Europe (2) and Russia (1). The researchers analyzed success

rates of antegrade wire escalation, antegrade dissection and re-entry and the retrograde approach on CTO interventions performed.

The mean age was 65±10 years and 85 percent of the patients were men with high prevalence of diabetes (43 percent), prior myocardial infarction (MI) (46 percent), prior coronary artery bypass graft surgery (33 percent) and prior PCI (65 percent). The overall technical and procedural success rate was 87 percent and 85 percent, respectively. The rate of in-hospital major complications was 3 percent (composite of death 0.9 percent), acute MI (1.1 percent), stroke (0.3 percent), tamponade (0.9 percent), emergency surgery (0.2 percent) and re-PCI (0.4 percent). The success rates for the antegrade wire escalation, antegrade dissection and re-entry and retrograde approach were 87.3 percent, 89.7 percent and 83 percent, respectively.

"The high success and acceptable complication rates suggest that at experienced centers CTO PCI can provide significant clinical benefits to the patients," said Peter Tajti, MD, Abbott Northwestern Hospital, Minneapolis Heart Institute in Minneapolis, MN. "The study results can facilitate discussions with both [patients](#) and physicians about the risk to benefits of the procedure and guide decision making on CTO PCI."

The authors are working on a new, multi-center study including centers from around the world to further assess the effect of CTO PCI symptoms when compared to the placebo-controlled procedure.

More information: Session Details: "Late-Breaking Clinical Science II: The Hybrid Approach of Percutaneous Coronary Interventions for Chronic Total Occlusion: Update from the PROGRESS-CTO (PROspective Global Registry for the Study of Chronic Total Occlusion Intervention) International Registry" [April 26, 2018, 11:00 a.m. - 12:00 p.m. PDT, Seaport DE]

Provided by Society for Cardiovascular Angiography and Interventions

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