TCTAP A-053

In-hospital and 3-year Clinical Outcomes Following Ad Hoc Versus Staged Percutaneous Coronary Interventions in Chronic Total Occlusion—A Real World Practice

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Background: Ad hoc percutaneous coronary intervention (PCI) which performed immediately after diagnostic catheterization has become the most common way of coronary intervention. However, limited data is available on in-hospital and long-term outcome comparing ad hoc and staged chronic total occlusion (CTO) PCI. Our aim of the study was to figure the short-term and long-term outcome after ad hoc or staged CTO PCI.

Methods: This retrospective analysis included consecutive 512 patients underwent 561 CTO PCI procedures between January 2002 and December 2009. Patient basic demographics, lesion characteristics, interventional procedure, devices used and in-hospital outcomes were compared between ad hoc and staged CTO PCI groups. 3-year clinical outcomes included all-cause mortality, cardiac mortality, myocardial infarction (MI), the need for coronary artery bypass graft surgery (CABG), major adverse cardiac events (MACE) and target vessel revascularization (TVR) were compared. Time-to-event analyses were performed using Kaplan-Meier statistics.

Results: Four hundred and fifty-one patients (80.4%) were enrolled in ad hoc CTO PCI group. Final successful revascularization was higher in ad hoc CTO PCI group compared with staged CTO PCI group (82.9 vs. 77.3%, p = 0.17) without statistical significance. There was no significant difference between ad hoc CTO PCI and staged CTO PCI groups in in-hospital outcomes such as all-cause mortality, cardiac death, myocardial infarction, urgent bypass surgery, urgent PCI or complications. Patients with ad hoc CTO PCI had lower rate of all-cause mortality (6.2% vs. 6.5%, p = 0.89), the need for CABG (1.9% vs. 2.1%, p = 0.89) but higher rate of cardiac mortality (1.7% vs. 0.0%, p = 0.21), MI (1.0% vs. 0.0%, p = 0.34), MACE (24.1% vs. 17.5%, p = 0.19) and TVR (17.8% vs. 10.0%, p = 0.069) without statistical significance in 3-year clinical outcomes.

Conclusion: 3-year clinical outcomes compared with ad hoc CTO PCI and staged CTO PCI had insignificant differences between: all-cause mortality, cardiac mortality, MI, the need for CABG, MACE and TVR.

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Congenital Heart Disease

(TCTAP A-054 to TCTAP A-061)

TCTAP A-054

Long-term Clinical Outcomes After Transcatheter Closure of Atrial Septal Defect in Adult: Influence of Age Procedure

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Background: Long-term clinical outcome after transcatheter closure of atrial septal defect (ASD) in adults remains unknown, especially in geriatric population. The aim of this study was to clarify the clinical implication of transcatheter closure of ASD among the different patient population over than 55 years of age.

Methods: A total of 212 patients over than 55 years of age who underwent transcatheter closure of ASD were enrolled. Patients were divided into 3 groups according to age at the procedure (55-64 years: n = 89, 65-74 years: n = 72, ≥75 years: n = 51). Cardiac or non-cardiac events and the changes of New York Heart Association functional class and hemodynamic parameters after the procedure were reviewed in each group.

Results: As shown in figure, Kaplan-Meier analysis revealed that the age at the procedure did not influence on all-cause mortality (log-rank test, P = 0.385) and cardiovascular mortality (log-rank test, P = 0.938). Additionally, major events including all-cause mortality and hospitalization due to heart failure or stroke were not different among the 3 different age groups at least 5 years follow-up period (log-rank test, P = 0.208). Even in patients aged ≥75 years, the improvements in New York Heart Association functional class (2.1 ± 0.7 to 1.5 ± 0.6, P < 0.001) and right ventricular / left ventricular end-diastolic diameter ratio (0.99 ± 0.23 to 0.75 ± 0.13, P < 0.001) were observed after the procedure, similar to the improvements in other 2 younger aged groups.

Conclusion: Although further long-term clinical outcomes are still unknown, our findings demonstrated that the clinical implication of this procedure is reliable even in geriatric population.

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TCTAP A-055

Transcatheter Closure of Multiple Atrial Septal Defects with Two Amplatzer Septal Occluder Devices

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Background: In recent years, ASD(atrial septal defect, ASD) occlusion has been widely promoted in China and also has achieved a great progress. However, it is sometimes a tough job in the treatment of MASD(multiple atrial septal defects,