

C54. Impact Of Transcatheter Aortic Valve Implantation On Atrio-Ventricular And Intra-Ventricular Conduction Disorders

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OBJECTIVES: Aortic degenerative valvulopathy is often associated with atrio-ventricular (AV) and intra-ventricular (IV) conduction disorders. Transcatheter aortic valve implantation (TAVI) with stented-valves may favor the onset or worsening of AV and IV block, by stretching and compression of annular calcification. We investigated the AV and IV conduction disorders at baseline and after TAVI.

METHODS: We took into account 58 patients undergone TAVI with CoreValve device, in our Department between May 2007 and January 2009. We collected ECG at baseline, during procedure, daily during hospitalization and at follow-up thereafter.

RESULTS: Three of our patients already had a permanent PM before implantation and were excluded from analysis. Besides them, 30 pts had same degree of AV-IV- conduction disorders before TAVI: 14 AV interval prolongation (> 200 msec), 8 complete LBBB, 8 RBBB. Of 55 patients without permanent PM, TAVI induced an increase in severity of conduction defect in all but 12 (78.1%): 25 developed LBBB, 18 developed complete AVB requiring PM implantation. Interestingly, 5 of these 18 patients had RBBB before TAVI, 7 had a disturbance of LBB, one had only a first degree AVB, and 5 patients had no conduction disorder pre-procedure. One months after discharge, one patient developed complete AV block requiring PM implantation.

CONCLUSIONS: The prevalence of AV and IV conduction disorders among patients with degenerative aortic valvulopathy is high. TAVI, using self-expandable CoreValve device, often worsened the degree of conduction disorders requiring PM implantation in about one third of patients. Further studies are needed to investigate predictors of conduction disorders after TAVI.