



## Arrhythmias

### LONG TERM EFFICACY OF AXILLARY VEIN APPROACH COMPARED WITH SUBCLAVIAN VEIN APPROACH FOR PERMANENT PACEMAKER IMPLANTATION

Poster Contributions

Poster Sessions, Expo North

Sunday, March 10, 2013, 9:45 a.m.-10:30 a.m.

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**Background:** Axillary vein approach for permanent pacemaker implantation has been suggested for expecting less complication and longer lead longevity than the subclavian vein approach, however there was no comparison report about long term complication.

**Methods:** We conducted a single center, retrospective, nonrandomized comparison. All consented permanent pacemaker implanted patients were reviewed. To access the axillary vein, a simple superficial landmark of the first rib or a technique using radiographic contrast was performed. The conventional anatomical landmarks were used for the subclavian vein approach.

**Results:** From January of 1991 to December of 2005, we studied total 659 patients, 1,168 permanent pacemaker leads [subclavian vein approach (group I: 342 patients, 549 leads) and axillary vein approach (group II: 317 patients, 619 leads)]. Baseline characteristics were not different between two groups except pacemaker mode. DDD type was more in group II than I (94% vs 62%) ( $P < 0.05$ ). During mean follow-up period of  $89 \pm 42$  months in group I and  $80 \pm 33$  months in group II, lead complications developed more in group I [(Group I: lead fracture 28 (5%), insulation defect 14 (3%) vs. Group II: lead fracture 20 (3%), insulation defect 4 (1%)] ( $P < 0.05$ ). Complication free survival curve showed that the complication rate was significantly higher in group I ( $p = 0.007$ ).

**Conclusions:** Axillary vein approach showed better long term efficacy with less lead complication rate compared with subclavian vein approach.

