



RISK OF ESOPHAGEAL INJURY IN A STANDARDIZED ABLATION COHORT UNDERGOING ATRIAL FIBRILLATION ABLATION

ACC Poster Contributions

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Background: The purpose of our study was to assess the risk for the development of esophageal ulcerations (ESUL) as potential precursor lesion for atrio-esophageal fistulae in a standardized ablation procedure.

Methods: 252 consecutive patients (pts), 63.1% paroxysmal atrial fibrillation (AF), 79% male, underwent AF ablation and esophagoscopy 24 hours thereafter. We performed radiofrequency ablation with the Carto or NavX system using a 25W power limit (open-irrigated tip) on the posterior left atrial wall. Pulmonary vein antrum isolation was done in every pt, lines and CFAE ablation was done in persistent AF cases and in paroxysmal cases where AF could be re-induced by rapid pacing or isoproterenol infusion.

Results: In total only 1.6% of pts (4/252) presented ESUL, all of them persistent AF cases ($p=0.008$). Parameters discriminating the development of ESUL in a specific patient were additional left atrial lines (roofline, $p=0.003$; left atrial isthmus $p=0.021$; coronary sinus ablation, $p=0.001$) and the distance between the left atrial wall and the esophagus with a trend to significance ($p=0.089$; 2.0 in pts with ESUL vs. 2.5mm). Discriminant analysis reached sensitivity as high as 82.0% to predict ESUL creation. Pts performed under general anesthesia did not have a higher risk.

Conclusions: With a standardized ablation approach using open-irrigated power limitation to 25W on posterior wall we discovered a very low rate of ESUL compared to other studies. We identified risk factors predicting esophageal injury.