Live Transmissions of Interventional Cardiology Procedures – Is it really safe?

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Objectives: We sought to examine the safety and long term results of interventional cardiac procedures performed during live case transmissions.

Background: Professional meetings use live case demonstrations to present cutting edge technology and are considered a key educational resource for understanding and implementing state-of-the-art interventional techniques and advanced therapeutic modalities. Yet, there is an ongoing discussion whether patients treated during live transmissions are exposed to a higher risk due to the need for selection of interesting cases and the theatric tension associated with a transmitted procedure.

Methods: Between 1998-2010, 101 patients have been treated during live transmissions from a single center throughout 14 conferences in Invasive Cardiology. Technical success was defined as the ability to perform effectively the planned procedure without any complication. The composite end point of death, myocardial infraction or stroke was defined as the primary end point.

Results: The interventional procedures included coronary (n=66), carotid (n=15), peripheral (n=2), valvular (n=2), pediatric (n=12) and complex ablation electrophysiologic interventions (n=7). In 4 cases the planned procedure was not done. The procedure was technically successful in 92 [93%] of 97 interventions. In 5 cases the procedure was unsuccessful due to inability to cross a chronic total occlusions with the wire. There were no deaths during the hospital stay. The composite primary end point occurred in 2/101 patients - a stroke following an atrial fibrillation ablation and Troponin elevation after PCI to the RCA.

Conclusions: In this consecutive series of interventional cardiology procedures performed by expert operators during live demonstration courses, the procedural and 30-day clinical outcomes are similar to the results in the contemporary published data thus demonstrating the safety of this approach.