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Testing Of Box Lesion By Adenosine

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To the Editor:

With reference to Oct. 2013 special issue of "Venice arrhythmia 2013" abstract "Complete Isolation Of The Left Atrial Posterior Wall (Box Lesion) To Treat Long standing Persistent Atrial Fibrillation" by E.B. Saad, C. Slater, L.A. Inacio Jr., L.E. Camanho from Center for Atrial Fibrillation Hospital Pró-Cardíaco, Rio de Janeiro, Brazil, the writers mention, "Left atrium posterior wall isolation was proved by adenosine infusion". However, to the best of our knowledge there is no supporting literature where adenosine reveals conduction across box lesion. At Maastricht University medical center, we isolate the pulmonary veins using epicardial bipolar radiofrequency clamps. Followed by completion of box lesion epicardially using bipolar radiofrequency pen.[1] After (only if needed) endocardial touch up using irrigated tip radiofrequency catheter, followed by proving bidirectional electrical block and waiting time of more than 30 minutes, 15-21 mg (the minimal dose required to demonstrate atrioventricular block) adenosine was infused through central jugular line followed by rapid saline flush. We repeated this procedure for 8 patients (very small number though), and did not observe any dormant conduction across the box lines at all. Datino et al.[2] described about significant hyperpolarization of resting membrane potential (RMP) only in pulmonary vein (PV) cells compared to left atrium (LA) attributing to due to larger I_{KAdo} and smaller I_{K1}. This finding has support on molecular level too.[3]

References:

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Disclosures:
None.

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