**WIDE COMPLEX TACHYCARDIA WITH PROPAFENONE USE - EXPLAIN IT TO MY HEART**

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Case Presentation: A 72-year-old female was evaluated for symptomatic palpitations and subsequently diagnosed with paroxysmal atrial fibrillation. Her other cardiac history included non-obstructive coronary artery disease with normal left ventricular function. She was started on propafenone 150 mg three times (TID) a day along with metoprolol 25 mg TID. She was prescribed mobile cardiac outpatient telemetry (MCOT) for documentation of arrhythmia control. On day 23 of MCOT, a wide complex tachycardia was reported but the MCOT company could not reach her. EMS was contacted immediately the prescribing physician. The patient was found unconscious on the floor at her home. She was defibrillated and transferred to the hospital. She had another episode of wide complex tachycardia in the emergency room, which too required defibrillation. She was aggressively treated with sodium bicarbonate for presumed diagnosis of propafenone toxicity.

*Decision-Making*: The differential diagnoses of wide complex tachycardia in this case were ventricular tachycardia and atrial flutter with 1:1 conduction which may be seen with the use of class IC antiarrhythmic agents. She underwent Electrophysiology study, which showed no inducible sustained ventricular tachycardia. However, she was found to have Inducible typical isthmus dependent flutter which was successfully ablated. Therefore her wide complex tachycardia was likely atrial flutter with 1:1 conduction due to propafenone toxicity despite being on a concomitant av-blocking agent. She was found to have decreased CYP2D6 activity upon further investigation.

*Conclusion*: Propafenone is frequently used in the management of atrial fibrillation and metabolized primarily by CYP2D6 isoenzyme. Approximately 6% of Caucasians are naturally deficient in CYP2D6 activity predisposing them to its toxicity. Our patient had the enzyme deficiency leading to proarrhythmic effects even with very low dose of the drug despite being on concomitant AV blocking agent.