**INCIDENCE OF VENTRICULAR ARRHYTHMIAS IN CYSTIC FIBROSIS PATIENTS TREATED WITH CHRONIC AZITHROMYCIN THERAPY AND OTHER QT PROLONGING DRUGS**

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*Introduction*: Chronic azithromycin therapy (CAT) is frequently used in the treatment of cystic fibrosis (CF) bronchiectasis and is associated with increased risk of ventricular arrhythmias (VA), especially torsade des pointes (TdP). CFTR chloride channels have been shown to prevent excessive prolongation of action potential duration and early after-depolarization, suggesting intact CFTR function may be protective against VA. CF patients may be at increased risk of VA due to aberrant CFTR function, CAT, plus other QT prolonging drugs (QTPD) often prescribed during acute treatment of CF exacerbation. *Methods*: Retrospective study of CF patients admitted to KUMC during 2014. 54 out of 189 CF patients were admitted for 84 hospitalizations. We obtained telemetry data, prescription data for CAT and QTPD for 74 hospitalizations of 48 patients.

*Result*: The study cohort (n=48) was 52% male and mean age at hospitalization was 34 years (+/- 12). 44% of patients were taking CAT at hospitalization and 71% were exposed to >1 additional QTPD during hospitalization. In 74 available telemetry recordings, evidence of sinus tachycardia was seen in 6/48(12.5%), PVCs were noticed in 1/48(2.1%), NSVTs in 3/48 (6.25%) and bundle branch block pattern was noted in 3/48 patients (6.25%). Of these, 1 was found to have transient bundle branch block (not seen on successive EKG/telemetry recordings), and 2 had a chronic RBBB. SVT was noted in one patient with history of WPW syndrome. No evidence of TdP or other significant VA were noted.

*Conclusion:* Physicians are routinely faced with the decision to discontinue CAT when prescribing other QTPD to CF patients. Despite discontinuation of CAT, the long half-life of azithromycin still portends theoretical risk. Our data represent the largest collection of telemetry data in a CF cohort, to our knowledge. Our findings suggest that perceived risk of VA may be overestimated in the CF population.