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P238 -Interruption of antiplatelets / anticoagulants and the risk of major adverse cardiovascular events (MACE) among patients undergoing renal biopsy

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Introduction:

Bleeding is one of the most feared complications of a renal biopsy; therefore, it is not uncommon practice to withhold antiplatelets and anticoagulants around the time of the procedure. These are commonly used medications in primary and secondary prevention of cardiovascular disease and there is paucity of studies examining the effect of their temporary interruption in patients undergoing renal biopsies on the rate of major adverse cardiovascular events, MACE.

Methods:

We constructed a retrospective cohort of consecutive patients who underwent renal biopsies in a single centre from April 2016 till March 2017. Demographic, laboratory and clinical data including patient's medications were captured through record review. Patients were followed up to 1 year allowing estimation of MACE incidence rate among those who had their antiplatelet or anticoagulants interrupted. MACE was defined as non-fatal myocardial infarction or acute coronary syndrome, non-fatal stroke and cardiovascular death. A series of univariate and a multivariate logistic regression models explored the correlates of MACE incidence adjusting for patients demographics, comorbidities and eGFR and expressed in Odds ratio with 95% confidence interval.

Results:

The cohort included 144 patients who were equally divided in terms of gender (72 each). The mean age was 57.9 ± 17.7 years. The median eGFR at the time of the biopsy was 33 mls/min, IQR (21-52). Most biopsies were done as an outpatient (65.9%) Vs inpatient (34%). 88.8% were native renal biopsies while the remainder were transplant biopsies (11.1%).

The percentage of patients who were on antiplatelets including aspirin, clopidogrel or ticagrelor was 23.6%. Only 10 patients (6.9%) were on anticoagulants (warfarin or direct oral anticoagulants). 54.5% of patients were on those medications for primary prevention and 45.5% for secondary prevention. All patients on this cohort had their antiplateles and /or anticoagulants stopped around the biopsy.

The 1-year incidence rate of MACE in the entire cohort was 3.5% while it was 2.8% among those who were on antiplatelets or anticoagulants.

Being on an antiplatelet agent was not associated with a higher risk of MACE [OR 2.23, 95% CI (0.357-13.888)]. On the other hand anticoagulants did correlate significantly with MACE [OR 10.86, 95% CI (0.013-0.629)]. This association remained significant after taking into account the effect of potential confounders in the multivariate model. Table-1 shows association of different variables with MACE.

Conclusion:

The group of patients who are on anticoagulants should be counselled about the higher risk of developing MACE in the 1 year post interruption of these medications for a renal biopsy. This risk should be balanced against the potential diagnostic benefit of a biopsy and the risk of bleeding.