PLATELET FUNCTION ANALYZER-100 AS A PREDICTOR OF BLEEDING COMPLICATIONS AFTER RENAL BIOPSY. C Mire, C LeBrun, T Fulop, University of Mississippi Medical Center, Jackson, MS.

**Background:** Many patients with advanced chronic kidney disease have a predisposition to bleed especially when they undergo an invasive procedure such as a renal biopsy. The predominant factor is abnormal platelet function. The Platelet Function Analyzer-100 (PFA-100) test assesses platelet function in normal subjects but has not been tested with any significance in patients with chronic kidney disease.

**Objective:** To investigate the utility of the PFA-100 test as a predictor of an increased risk for complications after a renal biopsy. **Design:** This is a prospective, blinded study of patients having a renal biopsy. Standard data obtained before the biopsy included: age, sex, weight, Chem 8, CBC, proteinuria, and PT/PTT. PFA-100 was drawn prior to the biopsy; however, results were not available until after the patient was discharged. Renal biopsies were performed under real-time ultrasound guidance using a 16-gauge, spring-loaded biopsy needle. Frequent post biopsy vital signs were monitored. A post-biopsy CBC was drawn at approximately 4 and 16 hours. On post-biopsy day #1, a brief renal ultrasound was performed to evaluate for hematoma formation. Data was analyzed using SPSS-13 for ANOVA and descriptive statistics.

**Results:** Twenty-nine patients were enrolled in this study. Clinical complications included: gross hematuria in 3 patients, transfusion requirement in 2, post-biopsy hematoma in 7, surgical intervention in 0, > 3 point drop in 4 hour post biopsy Hct in 8, and >15 point drop in 4 hour post biopsy systolic blood pressure in 8. Abnormal PFA-100 test did not significantly predict any of the clinical complications above. In subset analysis of native and transplant kidney biopsies, an abnormal PFA-100 test did not predict transfusion requirement in transplant kidneys but did predict transfusion requirement in native kidneys (p=0.004). **Conclusion:** In this study, the PFA-100 test was not predictive of bleeding complications after renal biopsy. Subset analysis reveals that the PFA-100 test may be beneficial in predicting bleeding complications in native kidney biopsies but not transplant kidney biopsies; however, a larger number of biopsies would be required before any conclusions can be drawn.