

**PLATELET FUNCTION ANALYSER-100 (PFA-100)
MONITORING DOES NOT PREDICT BLEEDING AFTER
PERCUTANEOUS KIDNEY BIOPSY.**

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Severe chronic kidney disease (CKD) patients have acquired platelet dysfunction and are at increased risk of bleeding during invasive procedures. Objective was to determine the clinical utility of Platelet Function Analyser-100 (PFA-100) during native and transplant percutaneous kidney biopsies (PKB).

A prospective blinded study enrolled 56 participants. Data was collected on baseline variables and procedure-related outcomes. Baseline data included age, sex, BMI, blood pressure (BP), BMP, CBC, urine studies and PT/PTT. PFA-100 was drawn before each biopsy. Desmopressin acetate (DDAVP) was given routinely for MDRD predicted GFR < 30 mL/min/1.73m². Real-time ultrasound (US) guidance PKB were performed. Procedure related outcomes included hematuria, need for transfusion and hematoma formation. Post biopsy monitoring included repeat vital signs, CBC and renal US. Data was analyzed using SPSS-13 for ANOVA.

Baseline characteristics: age 43.7 ± 15, BMI 26.9 ± 4.9, SBP 138 ± 14.6, DBP 80.3 ± 11.3, serum creatinine (SeCr) 3.3 ± 2.28mg/dl, MDRD GFR 33.4 ± 19.1cc/min/1.73 m², random urine Alb/Cr ratio 6 ± 5.6, hemoglobin (Hb) 11.2 ± 2.16. Fifty-one (91%) participants had valid PFA-100 values. Average number of passes 3.34 ± 1.13. Eleven patients had post-biopsy hematoma, 5 had hematuria, and 4 required transfusion. There were no deaths, renal loss, or need for surgical intervention. Little association between bleeding risk and baseline characteristics. SeCr predicted risk of transfusion (p=0.011), with a corresponding trend for lower MDRD GFR (p=0.099). There was an association between number of passes and post biopsy transfusion (p=0.008), as well as, between post-PKB Hb at 4 hour (p=0.006), with a trend for lower mean arterial pressure (p=0.167).

PFA-100 monitoring does not predict bleeding after PKB. Abnormal PFA-100 did not predict any of the main outcomes. Most complications became evident within 8 hours post-procedure.