Bleeding complications post ultrasound guided renal graft biopsy- a single center experience from Pakistan.

Rabeea Azmat¹, Hafiz Abdul Basit Siddiqui²
¹Department of Internal medicine, Aga Khan University Hospital, Pakistan
²Department of Internal Medicine-Nephrology, Aga Khan University Hospital, Pakistan

Objectives: Renal biopsy is the diagnostic modality of choice for the diagnosis of renal parenchymal diseases. The advent of improved imaging techniques and biopsy needles over the years has increased the safety of the procedure and the ability to obtain adequate renal tissue for diagnosis. Extensive data is available in the literature on the native kidney biopsy procedure and its complications. We are presenting our centre experience of renal graft biopsy related complications.

Methods: A prospective cross sectional study was conducted in patients with renal transplant, hospitalized from January till December 2015 at Nephrology Department, Aga Khan University Hospital, Karachi, Pakistan. All biopsies were performed under real-time ultrasound guidance by a nephrologist. The following data were obtained: age, gender, complications associated with the procedure. Minor complications: Gross hematuria which did not require intervention such as blood transfusion or angiography. Perinephric hematoma< 5 cm in size on ultrasound imaging that did not need any intervention such as nephrectomy, angiography or blood transfusion. Major complications: Gross hematuria or perinephric hematoma with a fall in haematocrit >10% from pre-biopsy level that require packed red blood cell transfusion, angiography or surgery or caused hypotension that require higher level of nursing care or need for vasopressor support.

Results: A total of 120 patients were included. Mean age was 41.65 years, 45(37.5%) were male and 75(62.5%) were female. Pre and post biopsy haemoglobin, pre and post biopsy haematocrit was 10.92 and 10.62, and 30.82 and 30.49 respectively. Out of 120 patients, 4(3.33%) developed major complications and 14 developed minor complications.

Conclusions: Percutaneous kidney graft biopsy is a relatively safe procedure. Complication rates following the procedure are minimal. It is important that all nephrology programs train the trainees in performing biopsies, so that there is a wider clinical use of this important investigation.