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### Audit of pediatric kidney biopsies from a tertiary care center

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**Objectives :** To audit the indications and complications of pediatric kidney biopsies performed in a tertiary care center

**Methods :** We undertook a retrospective review of consecutive patients <18 years of age who underwent kidney biopsy in a tertiary care center from October 2016 to February 2023. Data was retrieved from the medical records and kidney biopsy register.

**Results :** A total of 224 children (45% males) with mean age of  $9.6 \pm 3.9$  years were analyzed. All patients underwent kidney biopsy using an 18 G automated spring-loaded biopsy needle by pediatric nephrologists; with 99% performed on the lower pole of the left kidney. Real-time ultrasound-guided biopsy was done in 104 (46%) patients, while blind biopsy after marking by a radiologist was done in the remaining (54%). The chief indications for kidney biopsy were nephrotic syndrome, rapidly progressive glomerulonephritis and lupus nephritis in 30%, 22% and 18%, respectively. Of all the kidney biopsies, only 3 (1.3%) were inadequate for histological opinion. Major complications in the form of blood transfusion need and iatrogenic arteriovenous fistula needing embolisation was required in two (1%) and one (0.5%) patients, respectively; no patient required surgical exploration or nephrectomy. Minor complications like perinephric hematoma, gross hematuria, bladder clots and sedation-related complications were noted in 14%, 13%, 1% and 1% patients, respectively. The overall complication rates were well within the British Association for Pediatric Nephrologists (BAPN) standards

**Conclusions :** Kidney biopsies are safe procedures with low complication rates when performed by trained pediatric nephrologists. Nephrotic syndrome, rapidly progressive glomerulonephritis and lupus nephritis constitute the most common indications for kidney biopsy in this cohort