“CLINICO-PATHOLOGICAL CHARACTERISTICS OF DRUG INDUCED ACUTE INTERSTITIAL NEPHRITIS AND ROLE OF STEROIDS IN MANAGEMENT: A SINGLE CENTER OBSERVATIONAL STUDY”

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BACKGROUND:
Acute interstitial nephritis (AIN) is a potentially reversible, but under-diagnosed cause of acute kidney injury. The role of steroids in the management of drug-induced AIN is debatable. There is scarcity of data on clinical characteristics of drug induced AIN, and role of steroids and its impact on renal outcomes from the developing countries.

METHODS:
We performed a retrospective study of patients with biopsy proven AIN over a period of 11 years. The main outcomes were recovery of renal function (Early (≤3 weeks) or Late (>3 weeks) and hemodialysis (HD) dependence at 12 weeks.

RESULTS:
A total of 48 (4.9%) AIN cases were found among 978 renal biopsies. Mean age was 47.6 ± 12.1 years and 56.3% were males. The offending agent could be identified in half of the patients (NSAIDs most commonly followed by antibiotics, diuretics and PPI). 75% presented with estimated glomerular filtration rate <15 ml/min/1.73m² (n=36) out of which 58.3 % (n=21) needed HD. 81.3% (n=39) patients ended up receiving steroids. 52% were started on steroids after a period of observation. Mean dose of prednisone was 0.8 ± 0.2 mg/kg per day. Early use of steroids (≤11 days) was significantly associated with earlier (≤21 days) recovery (p= 0.003) as compared to late use of steroids (>11 days).

CONCLUSION:
Our data showed the benefit of earlier use of steroids in achieving rapid and complete renal recovery in drug induced AIN in a developing country with frequent use of over-the-counter drugs. Late steroid use (≥3 weeks) was not associated with any further recovery at an additional risk of exposing patients to undue adverse effects.