



AN OBSERVATIONAL STUDY OF THE EPIDEMIOLOGICAL, CLINICAL AND LABORATORY PROFILE OF IgA NEPHROPATHY

SQN LDR (Dr.) MANJITPAL SINGH, Dr. SHIVENDRA SINGH, Dr. H C SREENIDDHI
DEPARTMENT OF NEPHROLOGY, IMS, BHU



INTRODUCTION

IgA nephropathy is the most common Glomerulonephritis in almost all parts of the world. Since, there are no national glomerulonephritis registries, the data regarding profile of IgA Glomerulonephritis in Indians is lacking and is based mostly on single center retrospective analyses of renal biopsy datasets.

AIM OF THE STUDY

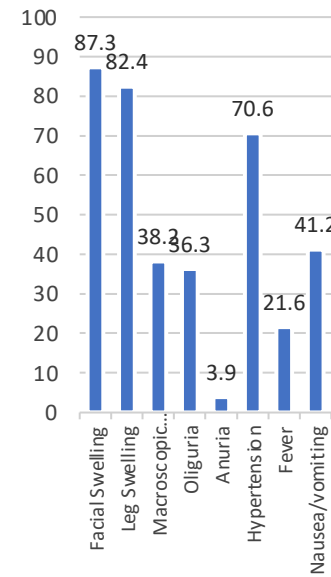
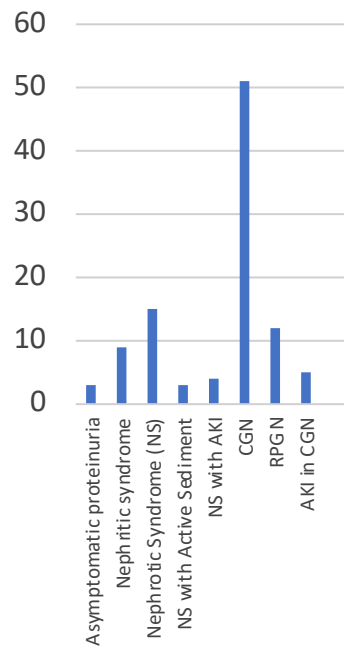
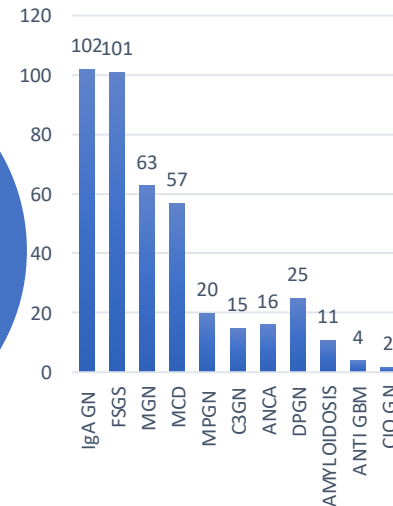
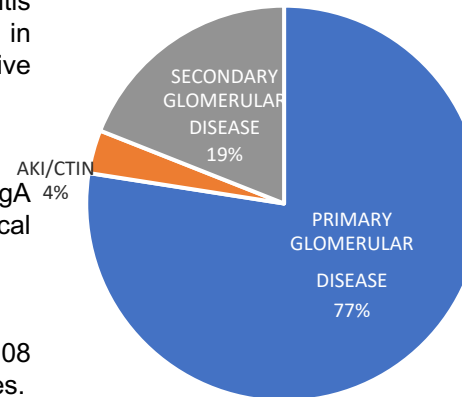
We aimed to build up on the existing knowledge of Primary IgA nephropathy in India, by documenting its epidemiological, clinical and laboratory spectrum in a prospective observational study.

MATERIALS AND METHODS

A total of 548 patients were studied from Oct 2018 to Sep 2021; 08 cases were excluded due to incomplete data or inadequate biopsies. Inclusion criteria: Glomerular proteinuria with or without active urinary sediment and Normal size Kidneys bilaterally. Exclusion Criteria: Presence of Systemic diseases which can affect/alter the glomerular function or morphology. Patients underwent Inpatient historical clinical and lab investigation followed by renal biopsy. The data was analysed using the SPSS 26.0, Inc. Chicago, Illinois. Confidence intervals were set at 95%, and a p-value \leq of 0.05 was considered statistically significant.

RESULTS

AGE in yrs: Mean \pm SD 31.31 \pm 11.89, 80 % < 40 year old and 40 % were in third decade of life
GENDER : Male /Female 63(61.8%)/39 (38.2%) showed Male predominance
DURATION OF ILLNESS in months :Mean \pm SD 3.70 \pm 4.92, 72 % had duration less than 3 months
24 hrs U.Protein: Mean 2.10g/day Creat (mg/dl): 5.05 \pm 4.49 eGFR 35.76 \pm 33.65 ml/min/1.73m ²
LIGHT MICROSCOPY Glomeruli examined 17.13 \pm 8.83, Global glomerulosclerosis % 40.14 \pm 23.94 Segmental glomerulosclerosis% 29.05 \pm 16.80 Crescents% 8.17 \pm 17.53 IFTA% 33.78 \pm 12.86 TMA 22.5%
DIF IgA 3+ 89 (87.3%) C1+ 68.6 % Lambda light chain 3+71% Kappa light chain 3+69.6 %
ELECTRON MICROSCOPY Min GBM thickness 311.71 \pm 73.35 Max GBM thickness 55.15 \pm 12.63
M1 42.2% E1 37.3% S1 92.1% T1/T2 54.7/11.9% C1/C2 22.5/6.9%



Association of Hypertension with eGFR and TMA

Variables	Hypertension		Total	Chi-square value	p-value	
	Absent	Present				
eGFR-classified	Class 1	10 (33.3%)	3 (4.2%)	13 (12.7%)	38.14	0.00*
	Class 2	10 (33.3%)	4 (5.6%)	14 (13.7%)		
	Class 3	4 (13.3%)	8 (11.1%)	12 (11.8%)		
	Class 4	2 (6.7%)	17 (23.6%)	19 (18.6%)		
	Class 5	4 (13.3%)	40 (55.6%)	44 (43.1%)		
TMA	0	28 (93.3%)	51 (70.8%)	79 (77.5%)	6.13	0.013*
	1	2 (6.7%)	21 (29.2%)	23 (22.5%)		

CONCLUSION

1. The incidence of IgA GN in India is on the rise. It is not only the most common cause of nephritic syndrome but the most common primary GN. Macroscopic hematuria without proteinuria is a rare clinical presentation. Crescentic GN and advanced presentation with normal size kidneys is more frequent than asymptomatic proteinuria in present Indian scenario.
2. Presence of Hypertension at presentation correlated well with higher grade of eGFR loss and presence of TMA.
3. We conclude that our study, as all reported studies from India, revealed severe clinical presentation of IgAN characterized by nephrotic range proteinuria, hypertension, renal insufficiency and advanced histological stages. Studies about prophylactic examination for urinary abnormality in children and adolescents to evaluate its impact on the outcome of IgAN patients are hence warranted so as to catch the patients young and in initial stages where antiproteinuric management along with immune-modulator therapy will play a more significant role in delaying progression rather than in catching patients at a stage where past injury begets more injury and active intervention is of no consequence.

REFERENCES

1. Khairwa A. Indian scenario of IgA nephropathy: a systematic review and meta-analysis. Afri Health Sci. 2021;21(1):159-65.
2. Soumita Bagchi et al. Clinical and histopathologic profile of patients with primary IgA nephropathy seen in a tertiary hospital in India Renal Failure , (2016), 38:3, 431-436