

Socio-demographic and clinical characteristics and etiology

The group comprised predominantly males (n = 24, 60%) rather than females (n = 16, 40%), with more female patients warranting RRT at presentation than males (Table 1). The mean age of our study population was 53.08 ± 10 years, with no significant age difference between both genders (p = 0.001). Of the patients included in the study, 12.55% had newly diagnosed DM at admission. In the remaining 35 patients, the mean duration was DM was 6.75 ± 4.07 years, with only 45.7% on regular treatment. History of nonsteroidal anti-inflammatory drug (NSAID) abuse was noted in three patients (7.5%), while smoking and alcoholism were present in 55% and 42.5%, respectively. Oliguria (87.5%) with features of volume overload (92.5%) predominated at clinical presentation, while new onset hypertension and uremia were observed in 60% and 45%, respectively. All seven patients who had anuria at presentation showed endocapillary proliferation, while crescents were evident in four patients. A total of 22 (55%) patients warranted haemodialysis at presentation.

Parameter		Total (n=40)	Fully Resolved (n=15)	Non-RRT Dependent (n=13)	RRT Dependent (n=12)	p value
n (%)	Male	24 (60)	9 (37.5)	7 (29.2)	8 (33.3)	0.808
	Female	16	6 (37.5)	6 (37.5)	4 (25)	
Age [years, (Mean ± SD)]		53.08 ± 10	49.07 ± 2.75	56.92 ± 3.00	53.92 ± 2.43	0.129
Comorbidities	Hypertension (n, %)	24 (60)	3 (18.8)	8 (50)	5 (31.3)	0.081
	Chronic Liver Disease (n, %)	1 (2.5)	0 (0)	1 (100)	0 (0)	-
	Diabetic Nephropathy (n, %)	9 (22.5)	0 (0)	3 (33.3)	6 (66.7)	0.008
	Hypothyroidism (n, %)	1 (2.5)	0 (0)	1 (100)	0 (0)	-
	Malignancy (n, %)	1 (2.5)	0 (0)	1 (100)	0 (0)	-
	Psoriasis (n, %)	1 (2.5)	1 (100)	0 (0)	0 (0)	-
	Pulmonary Tuberculosis (n, %)	1 (2.5)	0 (0)	1 (100)	0 (0)	-
Smoking (n, %)		22 (55)	8 (36.4)	5 (22.7)	9 (40.9)	0.183
Alcohol (n, %)		17 (42.5)	6 (35.3)	4 (23.5)	7 (41.2)	0.368
Duration of Diabetes Mellitus [years, (Mean ± SD)]		6.75 ± 4.07	5.58 ± 1.20	62.3 ± 1.25	8.85 ± 1.09	0.196
Newly detected Diabetes Mellitus (n, %)		5 (12.5)	3 (60)	2 (40)	0 (0)	0.275
Diabetes Mellitus treatment compliance (n, %)		19 (54.3)	4 (21.1)	6 (31.6)	9 (47.4)	0.123
History of Acute Kidney Injury (n, %)		0 (0)	0 (0)	0 (0)	0 (0)	-
History of NSAID abuse (n, %)		3 (7.5)	2 (66.7)	0 (0)	1 (8.3)	0.406
Newly detected hypertension (n, %)		24 (60)	12 (50)	5 (20.8)	7 (29.2)	0.081
Fever (n, %)		13 (32.5)	4 (30.8)	5 (38.5)	4 (30.8)	0.800
Duration of fever [days, (Mean ± SD)]		2.35 ± 4.15	0.86 ± 0.41	4.08 ± 1.64	2.33 ± 1.05	0.124
HIV infection (n, %)		1 (2.5)	0 (0)	1 (100)	0 (0)	0.345
Oliguria (n, %)		35 (87.5)	11 (31.4)	13 (37.1)	11 (31.4)	0.091
Duration of oliguria [days, (Mean ± SD)]		6.13 ± 4.02	5.00 ± 1.15	8.85 ± 1.04	4.50 ± 0.67	0.008
Anuria (n, %)		7 (17.5)	1 (14.3)	1 (14.3)	5 (71.4)	0.031
Duration of anuria [days, (Mean ± SD)]		2.57 ± .079	2 ± 0	2 ± 0	2.80 ± 0.37	0.568

Fluid volume overload (n, %)	37 (92.5)	13 (35.1)	13 (35.1)	11 (29.7)	0.406
Uremia (n, %)	18 (45)	2 (11.1)	7 (38.9)	9 (50)	0.004
Mean interval to presentation	7.97 ± 4.48	8.27 ± 1.51	9.62 ± 0.96	5.83 ± 0.74	0.101
Infective Foci	Diabetic foot ulcer (n, %)	14 (35)	2 (14.3)	6 (42.9)	0.346
	Skin infection (n, %)	8 (20)	5 (62.5)	2 (25)	
	Dental caries (n, %)	1 (2.5)	1 (100)	0 (0)	
	Lung infection (n, %)	2 (5)	0 (0)	1 (50)	
	Unidentified (n, %)	15 (37.5)	7 (46.7)	4 (26.7)	
Diabetic Neuropathy (n, %)	14 (35)	2 (14.3)	6 (42.9)	6 (42.9)	0.082
Diabetic Retinopathy (n, %)	26 (65)	6 (23.1)	10 (38.5)	10 (38.5)	0.035
Peripheral Vascular Disease (n, %)	10 (25)	2 (20)	6 (60)	2 (20)	0.098
Need for RRT (n, %)	22 (55)	2 (37.5)	8 (36.4)	12 (54.5)	<0.001
Mean Duration of Hospital Stay (days)	17.28 ± 8.03	12.93 ± 1.53	19.85 ± 2.95	19.92 ± 1.27	0.025

TABLE 1: Patient clinical characteristics

NSAID - Non-Steroidal Anti-Inflammatory Drugs, RRT - Renal Replacement Therapy, HIV - Human Immunodeficiency Virus, SD - Standard Deviation

The mean interval to presentation to our centre was 7.9 ± 4.8 days from onset of symptoms. Microscopic hematuria was uniformly present, but proteinuria was variable. Diabetic foot ulcers (35%) and skin infections (20%) were identified as predominant infective triggers, while no infective foci could be identified in the majority of the study group (37.5%).

Laboratory parameters and histopathology

The mean C3 and C4 complement levels were 53.6 ± 19.0 mg/dL and 19.15 ± 2.42 mg/dL, respectively, while normal complement levels were observed in three (7.5%) patients (Table 2). Endocapillary proliferation was universal, while capillary lumen obliteration was found only in one-third of cases (Figure 1). It was also noticed that a significant proportion of patients (42.5%) have had concomitant crescentic glomerulonephritis, while acute tubular injury (ATI) was identified in 24 (60%) patients. Coexisting diabetic nephropathy on histopathology was noted in nine patients, among which six patients progressed to ESRD.