A renal biopsy should not delay treatment initiation in suspected lupus nephritis

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INTRODUCTION:

Renal biopsies are considered the gold standard in diagnosing lupus nephritis (LN). ALMS, the largest randomized trial in LN, demonstrated the non-inferiority of mycophenolate mofetil (MMF) compared to cyclophosphamide. Since its publication, MMF has been standard therapy in proliferative LN, but there may be delays in obtaining a histological diagnosis due to practical considerations. Renal biopsy also has a recognized complication rate.
Our aim was to assess whether histological findings influenced treatment in patients with SLE and clinical features consistent with LN.

METHODS:

Histopathology and renal databases were used to identify all cases of new biopsy-proven active LN, diagnosed between February 2012 and November 2016 and managed at the Barts Lupus Centre (n=62). Demographic and clinical data were collected using case records and pathology systems.
LN classes based on glomerular pathology were defined according to the ISN/RPS 2003 classification.
Patients were divided into sub groups based on their renal function (eGFR above or below 50 ml/min/1.73m^2).

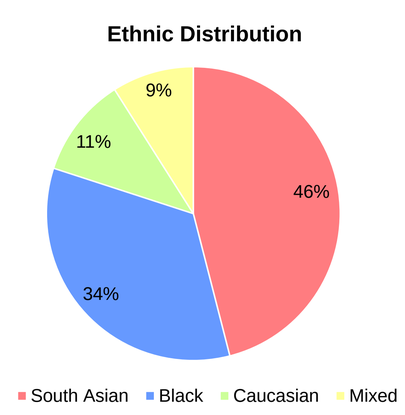
RESULTS:

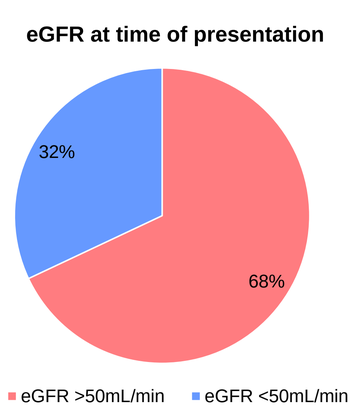
	eGFR > 50mL/min	**eGFR ≤ 50mL/min**
N = 62	42	20
Female	38	17
Male	4	3
Mean age	35 yrs	44 yrs
Mean eGFR at presentation	106 mL/min	27 mL/min
Mean albumin at presentation	30 g/dL	25 g/dL
Mean uPCR at presentation	520 mg/mmol	688 mg/mmol

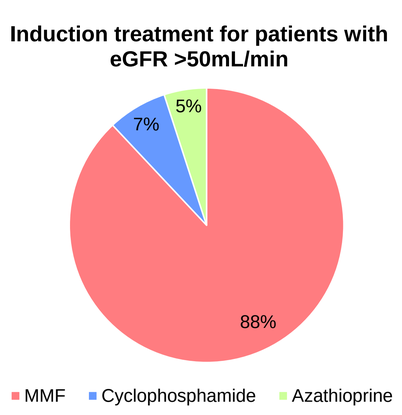
Treatment:
eGFR > 50mL/min: - 88% MMF
- 7% Cyclophosphamide
(1-clinician decision, 2-severe extrarenal manifestations)
- 5% Azathioprine (Pts had sub-nephrotic proteinuria)

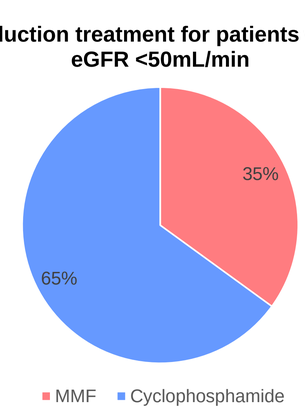
eGFR ≤ 50mL/min: - 65% Cyclophosphamide
- 35% MMF

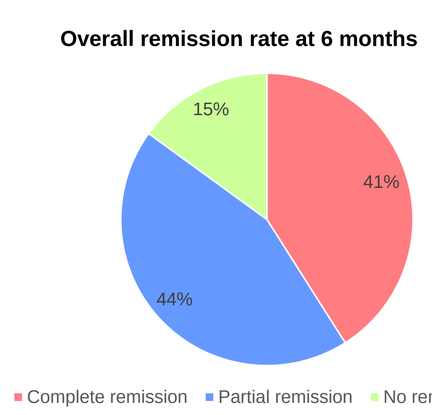
Remission at 6 months: (n=54, insufficient data for 8 patients)
Complete remission (Proteinuria < 50 mg/mmol): 41%
Partial remission (Proteinuria < 200mg/mmol): 44%
No Remission: 15%











CONCLUSION:

Current guidelines strongly recommend performing a kidney biopsy in every patient presenting with suspected LN. Our findings indicate that in patients with preserved renal function and significant proteinuria, treatment decision is not influenced by biopsy result. We therefore propose, that induction treatment with MMF should not be delayed until a renal biopsy result is available. This study also questions the necessity of baseline histology in LN patients with preserved renal function, as the majority respond to standard therapy, and raises the possibility that biopsy could be reserved for patients who are resistant to induction therapy.

REFERENCES:
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