

Mycophenolate mofetil or Cyclophosphamide in Colombian Caribbean patients with lupus nephritis: ¿Which is better?

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Objective

To compare oral MMF with monthly i.v. CyP as induction therapy for active biopsy proven Class III and IV LN

Methods

423 proliferative LN patients were retrospectively studied: MMF (2g/day for 6 months) vs CyP (500mg IV every 15 days for 3 months). ACR criteria assessed therapy response, with disease severity as a secondary endpoint. Renal survival was compared between groups using a Kaplan-Meier estimator.

Results

87% female, mean age 41.1±13.1 years. Proliferative class IV LN (66%). Baseline proteinuria and creatinine differed significantly between MMF and CyP groups (p<0.05) (Table 1). MMF showed complete remission in 77% vs 23% for CyP. No-Remission was 80% for MMF and 20% for CyP. Comparable renal survival (p>0.05) based on serum creatinine at first presentation (Figure 1).

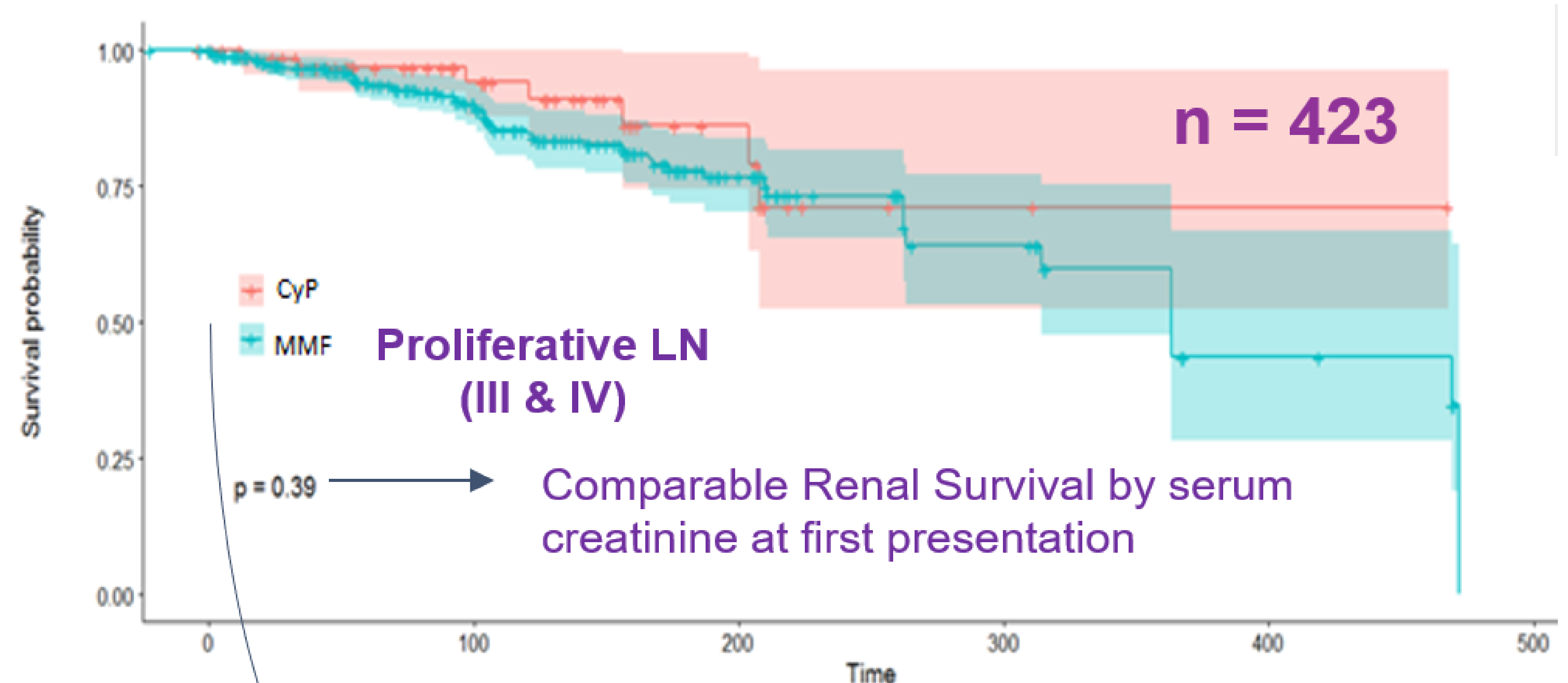
Conclusion

MMF and i.v. CyP showed comparable efficacy in inducing therapy for proliferative LN in our population. i.v. CyP has advantages of ensuring compliance and cost-effectiveness due to spaced doses. Further studies are needed to assess the impact of biologic therapies in this population.

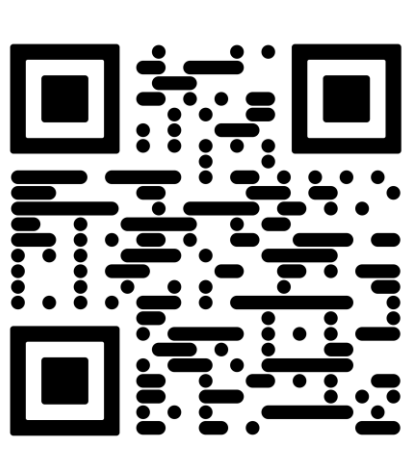
| Parameter | Induction Therapy | | | |
|---------------------------------------|-------------------------------|-----------------|-----------------|--------|
| | MMF (n=331) | CyP (n=92) | P value | |
| Demographic Characteristics | Age, yrs (Mean, range) | 37 (18-56) | 34 (18-75) | 0,6 |
| | Female, (%) | 292 (88) | 78 (85) | 0,09 |
| | Male, (%) | 39 (12) | 14 (15) | |
| Disease Severity (Mean, Range) | Proteinuria (g/day) | 1,4 (0,1-5,1) | 2,1 (0,2-28) | 0,001* |
| | Mean Serum Creatinine (mg/dl) | 1,3 (0,4-12,6) | 2 (0,5-8,3) | 0,02* |
| | eGFR (ml/min/m ²) | 65,3 (5,7-75) | 43,3 (5,7-64) | 0,9 |
| | C3 (mg/dl) | 68,7 (17,6-204) | 71,4 (21,5-146) | 0,6 |
| | C4 (mg/dl) | 26 (3-55) | 27,1 (8-49,9) | 0,5 |
| Treatment Response | Anti-dsDNA (IU/ml) | 81,5 (30-129) | 86,7 (31-129) | 0,1 |
| | Complete Remission, n, (%) | 91 (27) | 27 (29) | 0,3 |
| | Partial Remission, n, (%) | 60 (20) | 22 (24) | 0,8 |
| | No Remission, n, (%) | 173 (52) | 43 (47) | 0,6 |

LN: Lupus Nephritis; Yrs.: Years; MMF: Mycophenolate Mofetil; CYP: Cyclophosphamide; C3: C3 Complement; C4: C4 Complement; eGFR: Estimated glomerular filtration rate. *P < 0,05. Chi-square test and Mann-Whitney U Test

Figure 1: Cumulative Kaplan-Meier estimates for renal survival between Mycophenolate Mofetil (MMF) vs Cyclophosphamide (CyP) n = 331 n = 92



Treatment Groups at Induction



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