Lupus nephritis (LN) is a serious complication of systemic lupus erythematosus (SLE) associated with considerable morbidity that has a devastating impact on a patient’s life. Disease outcomes tend to be worse for patients with refractory LN, but little is known about true impact of LN on a patient’s health-related quality of life (HRQoL) in an autoimmune disease that can affect several organ systems. The objective of this literature review was to qualitatively summarize the evidence on the humanistic burden of LN in adult patients with SLE.

Methods

A targeted literature review (TLR) was conducted in MEDLINE/Pubmed and Embase to identify studies in adult and juvenile patients with diagnosed LN. A search strategy was developed separately for the two databases to identify relevant peer-reviewed articles published in English between March 2012 and March 2022, and conference abstracts indexed in Embase since 2000. All records were screened by a single reviewer according to pre-specified inclusion and exclusion criteria.

The current paper summarizes data on humanistic burden of disease and treatment impact on HRQoL in adult patients with LN.

Results

• Of the 4,216 records identified in the medical databases, totals of 11 studies have evaluated HRQoL in adult patients with LN:
  9 non-interventional studies,
  1 randomized clinical trial (RCT) with rituximab and standard of care (SoC)
  1 real-world evidence (RWE) study with induction therapy and cyclophosphamide.

• The studies were conducted in USA (n=5), multiple countries worldwide (n=3), Latin America (n=1) and Europe (n=2).

Figure 1. PRISMA diagram

<table>
<thead>
<tr>
<th>Study</th>
<th>LN vs SLE</th>
<th>LN vs SLE</th>
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</thead>
<tbody>
<tr>
<td>USA</td>
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<tr>
<td>Brazil</td>
<td>N=251</td>
<td>N=688</td>
<td>N=81</td>
<td>N=286</td>
</tr>
</tbody>
</table>

Table 1. Adult patients with LN, especially those with active LN, showed worse HRQoL compared to patients with SLE only or those with inactive LN.

Figure 1. Active LN significantly impacted patients’ HRQoL measured by LupusQol, compared to those with inactive LN or SLE only

Table 2. Active LN was significantly associated with worse scores in all domains of SF-36 suggesting a deterioration in multiple aspects of life, especially in physical and emotional functioning (p<0.05), which was more pronounced compared to references of other mechanisms in organ systems.

Conclusions

• LN significantly affects HRQoL across multiple domains of life, including physical and emotional functioning, that are particularly affected during periods of active disease and in patients with severe renal impairment.

• There is very limited evidence on humanistic benefits of the current SoC therapy in LN from controlled trials and real-world practice.

• Dissatisfaction with current therapies was reported in 1 in 3 patients and 1 in 4 physicians.

• There is a high unmet need for expanding current therapeutic options for LN that would help improve patients’ HRQoL.

References


Author Disclaimers and Acknowledgements

Correspondence to: Gregory Parker, Medical Affairs, Life Sciences, Inc. eparker@kezarbio.com

Abbreviations: HRQoL, health-related quality of life; LIT, Lupus Impact Tracker LN, lupus nephritis; RCT, randomized controlled trial; RWE, real-world evidence; SF-36, Short Form Health Survey Questionnaire; SLAQ, Systemic Lupus Activity Questionnaire; SLE, systemic lupus erythematosus; SoC, standard of care; TLR, table and abstract; TLR, targeted literature review; USA, United States of America.