OUTCOMES AND SAFETY OF RITUXIMAB USE IN SYSTEMIC LUPUS ERYTHEMATOSUS – A SINGLE-CENTRE ANALYSIS

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Background/Purpose Rituximab (RTX) has been used worldwide in moderate to severe Systemic Lupus Erythematosus (SLE), despite failure in clinical trials. We reviewed our centre’s experience in efficacy, tolerability and safety of RTX in SLE patients.

Methods Retrospective single-centre (35 year long, 700 SLE patient cohort) review of records of all SLE adults treated with RTX from 2009 until September 2019. Outcomes were based on physician’s assessment, SLEDAI variation, drug reactions, infections, neutrophil count, immunoglobulin and B-cell count.

Results 45 patients (64%, of total) were treated with RTX. 38 had sufficient data for analysis. Thirty (63%), female, mean diagnosis age 30.5 years, mean disease duration at first RTX of 123.1 months (±119). Five patients had more than one induction and 11 patients had maintenance doses - total 63 administrations of RTX. Induction regimen was mainly 1 g 15 days apart. The main indications for treatment were lupus nephritis (n=12), arthritis (n=7) and skin involvement (n=6). Mean pre-treatment SLEDAI was 986 ± 6.4 points. Most patients had a favorable response (84.2%, n=32) with a mean SLEDAI reduction of 7.2 points (±5.2). B-cell depletion at 3 or 6 months (52.9%) was more frequent in responders (p=0.003), but 8 non-depleters also responded. Non-responders had lower C3 and hemoglobin pre-RTX (p<0.05). Hypersensitivity reactions occurred 3 times (during the first cycle), 1 requiring adrenaline. One patient had a late-onset allergic reaction. Other adverse outcomes included infection requiring hospitalization (7.9%, n=5), non-serious infection (4.4%, n=4), non-severe neutropenia (3.2%, n=2), acute heart failure (1.6%, n=1) and death due to serious infection (1.6%, n=1). There were 2 cases (3.2%) of IgG hypogammaglobulinemia.

Conclusion Our centre has a higher use of RTX than that reported in the literature. Success rate for RTX is high in our cohort with very few serious adverse events.