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ELEVENTH ANNUAL MEETING

Efficacy of Lenalidomide Plus Dexamethasone in Multiple Myeloma Patients Associated with Systemic Lupus Erythematosus

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INTRODUCTION

Systemic lupus erythematosus (SLE) is an autoimmune inflammatory connective tissue disease that affects multiple organs and occurs mostly in young women. Quantitative studies have shown that genetic, endocrine, infectious, immune dysfunction, and environmental factors are related to the pathogenesis of SLE.

The association between SLE and lymphoproliferative syndromes is frequently reported in the literature.

Multiple myeloma (MM) is a malignant plasma cell disorder in which tumor cells originate from plasma cells in the bone marrow.

AIM

Lenalidomide plus dexamethasone to control MM that complicate SLE.

METHOD

15 newly diagnosed MM in SLE patients on treatment from May 2017 till Jan 2023 with a median 36 months follow up**..**

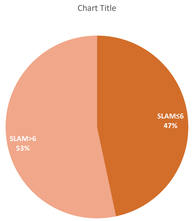
11 females and 4 males previously diagnosed with SLE by history, examination, ESR, CRP, anti dsDNA and complement. Patients were on Hydroxychloroquine and steroid ± cyclosporine. ON FU, patients developed myeloma events with underlying plasma cell proliferative and ≥ 1 SLiM-CRAB features.

Patients started Lenalidomide plus dexamethasone.

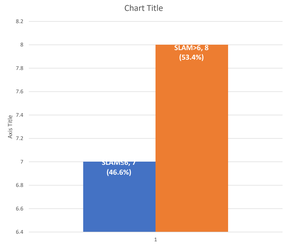
MAIN OUTCOMES MEASURES: ORR, PFS, OS and Systemic Lupus Activity Measure (SLAM) index.

RESULTS

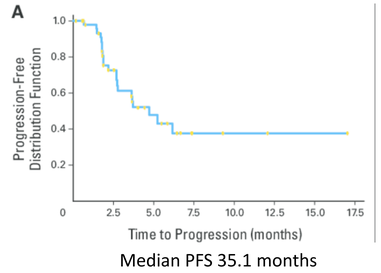
Serum and urine immunofixation revealed IgG and IgA with free light chains in 13 (86.6%) and 2 (13.4%) patients, respectively. CrCl < 40 mL/min in nine (60%), Hb < 10 g/dL in 10 (66.6%), ≥ 1 lytic lesions in 12 (80%) patients. All patients showed BM plasma cells infiltration. Renal impairment patients underwent renal biopsy confirmed mixed features of lupus nephritis and myeloma. SLAM index showed high disease activity (SLAM>6) so all patients considered myeloma non transplant eligible and started induction Lenalidomide plus dexamethasone. After three months, 10 (66.6%) patients showed partial response (IMWG response criteria) with improvement of SLAM index in seven (46.6%) patients (SLAM≤6). Sex months later, 11 (73.3%) patients showed complete response and 12 (80%) patients had improved lupus activity (SLAM≤6). Four patients out of this cohort were relapsed/refractory myeloma and planned for other subsequent lines according to performance status. No available MRD so we considered responders (11 patients; 73.3%) candidate for maintenance Lenalidomide plus dexamethasone. With a median 36 months follow up; myeloma ORR was 86% (≥ VGPR: 66%), median PFS: 35.1 months and median OS: not reached. Improvement in SLE disease activity index (SLAM≤6) documented in 75% at end of the study.



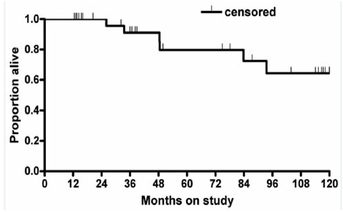
IMWG response criteria after three months of treatment



SLAM index for SLE after three months of treatment



Median PFS 35.1 months



Median OS Not reached

CONCLUSIONS

Lenalidomide plus dexamethasone showed acceptable ORR, PFS, OS and SLAM index in SLE patients complicated with MM with tolerable toxicity that open way to test triplet therapy.

REFERENCES

Cowan AJ, Green DJ, Kwok M, et al. Diagnosis and management of multiple myeloma: a review. *JAMA*. 2022;327(5):464-477.

Li G, Li Y, Liu H, et al. Genetic heterogeneity of pediatric systemic lupus erythematosus with lymphoproliferation. *Medicine*. 2020;99(20):e20232.

Maamar M, Tazi Mezalek Z, Harmouche H, Adnaoui M, Aouni M, Maaouni A. Systemic lupus erythematosus and multiple myeloma: an uncommon association. Two cases and literature review. *Clin Exp Rheumatol*. 2008;26(4):667-670.

Zucchi D, Elefante E, Schilirò D, et al. One year in review 2022: systemic lupus erythematosus. *Clin Exp Rheumatol*. 2022;40(1):4-14.

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