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LUPUS NEPHRITIS COMPLICATED BY MYOCARDITIS

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ABSTRACT Systemic Lupus Erythematosus (SLE) is a chronic multisystem autoimmune disease with variable clinical manifestations. Lupus nephritis is among its most serious complications, while lupus myocarditis is uncommon but potentially life-threatening. We describe a 30-year-old female with Class IV diffuse proliferative lupus nephritis complicated by acute lupus myocarditis. She presented with fever, burning micturition, generalized edema, dyspnea and oliguria. Evaluation demonstrated nephrotic-range proteinuria, anemia, thrombocytopenia, positive ANA and anti-Sm/RNP antibodies. Renal biopsy confirmed Class IV lupus nephritis. During hospitalization she developed severe left ventricular systolic dysfunction with ejection fraction falling from approximately 50% to 20–25%. Cardiac biomarkers and echocardiographic findings supported lupus myocarditis. After control of urinary infection, treatment with corticosteroids, mycophenolate mofetil, hydroxychloroquine, methotrexate and standard heart failure therapy resulted in marked clinical improvement. Renal function, proteinuria and left ventricular function improved on follow-up. This report highlights the importance of early diagnosis, multidisciplinary care and timely immunosuppression.

KEYWORDS : Systemic Lupus Erythematosus; Lupus Nephritis; Lupus Myocarditis; Heart Failure; Case Report.

INTRODUCTION

Systemic Lupus Erythematosus is an autoimmune disease characterized by immune-complex mediated inflammation affecting multiple organs. Renal involvement occurs in a substantial proportion of patients and remains a major determinant of prognosis. Cardiac manifestations include pericarditis, valvular disease, coronary artery disease and myocarditis. Lupus myocarditis is clinically recognized in only a small percentage of patients but may be underdiagnosed because presentations range from mild ventricular dysfunction to fulminant heart failure. Coexistence of severe lupus nephritis and myocarditis is uncommon and requires rapid diagnosis and aggressive treatment. This case illustrates successful management of this rare presentation.

CASE REPORT

A 30-year-old woman presented with one week of fever, burning micturition, generalized edema, progressive breathlessness and oliguria. Examination and investigations revealed nephrotic-range proteinuria, anemia, thrombocytopenia, positive ANA (2+) and anti-Sm/RNP antibodies. Serum creatinine was 4.06 mg/dL. Renal biopsy demonstrated Class IV diffuse proliferative lupus nephritis. Initial management consisted of treatment of urinary tract infection, intravenous methylprednisolone pulse therapy followed by oral corticosteroids, hydroxychloroquine and low-dose mycophenolate mofetil.

During admission she developed worsening dyspnea (NYHA Class IV). Echocardiography revealed global left ventricular hypokinesia with deterioration in ejection fraction from about 50% to 20–25%. Elevated cardiac biomarkers together with the clinical picture favored lupus myocarditis after excluding more common causes. Following adequate infection control, immunosuppression was intensified using full-dose mycophenolate mofetil, corticosteroids, hydroxychloroquine and methotrexate. Guideline-directed therapy for heart failure and supportive care were continued.

Follow-up showed gradual improvement. Serum creatinine decreased to 1.4 mg/dL, proteinuria reduced to below 0.5 g/day and ejection fraction improved to 40–45%. Clinical symptoms and functional status improved substantially.

CONCLUSION

Lupus myocarditis should be considered in patients with SLE who develop acute heart failure or unexplained left ventricular dysfunction. Early diagnosis, aggressive immunosuppressive therapy and coordinated multidisciplinary care can result in significant improvement in both renal and cardiac function.

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