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COLLAPSING GLOMERULOPATHY IN SYSTEMIC LUPUS ERYTHEMATOSUS

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BACKGROUND

Collapsing glomerulopathy (CG) is a rare condition characterized by global or segmental collapse of the glomerular capillary tuft overlaid by visceral epithelial hypertrophy. It has been described as a primary form (associated with podocytopathy) or secondary to other conditions, including infections (HIV, hepatitis C and tuberculosis) and autoimmune disorders. We describe a rare case of CG secondary to systemic lupus erythematosus (SLE).

CASE REPORT

A 22-year-old woman was admitted to a tertiary university hospital with arthralgia, malar rash and nephrotic syndrome. She had been diagnosed with SLE based on her skin and joints manifestations, presence of antinuclear antibodies 1/640 with a speckled pattern and anti-ribonucleic protein antibodies. Urinalysis showed protein 3+ and 13 leukocytes per field (<5), 24-hour proteinuria of 4.7 g and serum creatinine within the normal range. A renal biopsy was performed and demonstrated glomeruli with podocytopathy and collapse of the capillary loops compatible with CG. Direct immunofluorescence was negative for the presence of immunoglobulins (Fig. 1). Serological tests for HIV, hepatitis B and C were negative. She underwent pulse therapy with methylprednisolone (1 g/day for 3 days) and cyclophosphamide (1 g/month for three months) followed by mycophenolate mofetil. She had a clinical improvement but maintained proteinuria (ranging from 3 to 6 g/24 hours).

Figure 1. Glomeruli with podocytopathy. (A and B) Collapse of capillary loops, hypertrophy, and aggregation of podocytes (Azan). (C) Immunofluorescence for IgG, outlining capillary loops, and mesangium (negative). (D) Electron microscopy: the disintegration of the pedicels, irregular thickening of the basement membrane of the glomerular capillary.

CONCLUSION

Collapsing glomerulopathy is rarely seen in SLE patients but its prognosis seems to be similar to the other causes of CG. The treatment options include high-dose corticosteroids and immunosuppression with cyclophosphamide or mycophenolate or cyclosporine therapy. The prognosis is not promising with remission of only 10% of the cases and progression to hemodialysis in half of the patients.