Lupus Nephritis presenting as Tuberculosis Infection: a Case Report

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Background: Lupus nephritis, a form of glomerulonephritis, is the inflammation of kidneys attributable to systemic lupus erythematosus (SLE). It is an autoimmune disorder in which kidney tissue insult is triggered predominantly by the complement system. Herein, we report the case of a 24 years old female with atypical manifestations of SLE.

Case Presentation: A female aged 24-years was presented with the complaint of fever, cough (with sputum) and dyspnea for the past one month. The preliminary physical examination was suggestive of pneumonia. Her laboratory investigations revealed anisocytosis and normochromic anemia (Hb 9.3 g/dL, HCT 30%). Lymphocytes (12%) were decreased while neutrophils (84%), platelets (439x103/µl) and ESR (75 mm/hr) were increased. A serum biochemistry test showed elevated urea (92 mg/dl), creatinine (1.5 mg/dl) and sodium (145 meq/L). The chest X-ray demonstrated a right sided pleural effusion which directed towards a possible Tuberculosis (TB) infection. However, pleural biopsy efficiently excluded an active TB infection. Nephrological investigations exhibited evidence of protein (0.3 g/L) and blood traces in the urine. Her proteinuria (2+) was within nephrotic range which was confirmed through qPCR (3.9 U). Moreover, serum TSH (8.054 mU/L) was also elevated and cardiolipin test was positive for IgM (1.10). SLE specific diagnostic tests anti-dsDNA was positive and ANA was also reactive. Left kidney biopsy exhibited characteristics of diffuse endocapillary proliferative glomerulonephritis. SLE diagnosis was established, and patient was treated with cyclophosphamide pulse therapy along with corticosteroid methylprednisolone and achieved complete remission.

Conclusion: To date, this is the first case report of SLE simulating as a TB infection in a developing country. The patient did not display classic triad of SLE; joint pain and malar rash aside from fever. This case reiterates the implication of considering unusual case presentations of SLE and undertaking rigorous clinical workup to minimize the probability of missed cases and improve patient clinical outcomes.