

Title:

Nephrotic Syndrome due to *Treponema pallidum* infection– An Unusual and Reversible Culprit for Membranous Nephropathy

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Introduction:

Infection with *Treponema pallidum*, or syphilis, has many presentations and is fittingly known as the “great imitator” in medicine. Ranging from skin rashes to gait ataxia, dementia, periostitis and hepatitis, syphilis is often forgotten in the differential diagnosis. This case highlights an unusual presentation of syphilis causing nephrotic syndrome.

Case Report:

A 30 year-old man presented with significant lower extremity, periorbital, and lower back swelling. He described mild discomfort and swelling in his groin, and reported he was sexually active with one female partner. On examination, vital signs were within normal limits. He was alert, oriented, and in no acute distress. Cardiovascular and pulmonary exams were normal. Skin examination revealed moderate periorbital edema, mild edema in the suprapubic and sacral areas, inguinal lymphadenopathy, and 2+ pitting edema in the lower legs. Laboratory results were significant for total protein of 5.1 g/dL and albumin of 1.7 g/dL. Urinalysis was notable for proteinuria \geq 500 mg/dL, and a 24-hour urine collection for 6 grams protein/day.

Patient was admitted to medicine, and underwent renal biopsy that revealed membranous glomerulonephritis. Additional history revealed that the patient was given an intramuscular antibiotic for a rash at a local clinic where he was found to have RPR titer at 1:128 and confirmatory testing positive for syphilis. Repeat testing during the hospital admission showed RPR titer at 1:64.

Discussion:

Patient was diagnosed with membranous nephropathy due to infection from syphilis. He was discharged and followed up in the clinic, with improving proteinuria. Though rare and reported to occur in only 0.28% of infected patients, a thorough sexual history and syphilis must be considered as this is a treatable cause of nephrotic syndrome.

Conclusion:

Syphilis affects multiple organs but the kidneys are less commonly involved and can lead to profound, but reversible nephrosis.