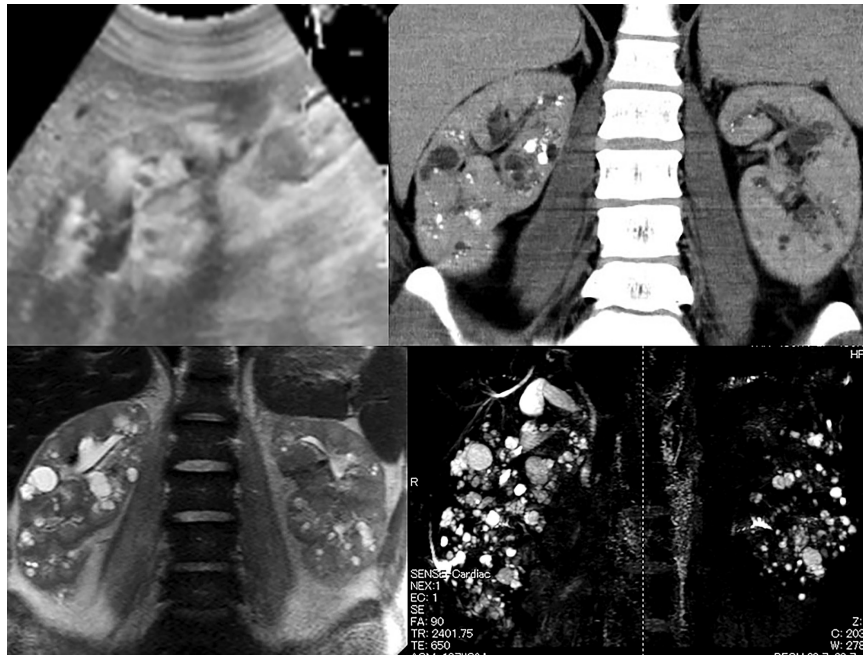


Medullary Sponge Kidney Diagnosed by Unenhanced Magnetic Resonance Imaging

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A 24-year-old man presented with fever and arthralgia. Systemic lupus erythematosus was diagnosed, and renal biopsy yielded a diagnosis of diffuse proliferative lupus nephritis. We found renal morphological abnormalities suggesting prominent nephrocalcinosis and multiple cysts by ultrasonography and computed tomography. Unenhanced magnetic resonance imaging combined with magnetic resonance urography revealed that the cystic lesions were concentrated at the corticomedullary junction and that they led to calyces. Since these findings suggested that the multiple cystic lesions were cystic ectasia of collecting ducts, we could diagnose his medullary sponge kidney (MSK). Intravenous pyelography didn't provide sufficient information because the contrast was poor.

Medullary sponge kidney is a cystic disorder characterized by ectasia of the collecting ducts, and to our knowledge, this is the first reported case of MSK complicated by systemic lupus erythematosus. Medullary sponge kidney has typically been diagnosed by intravenous pyelography,¹ and there is no established alternative procedure when intravenous pyelography is insufficient for diagnosis. Unenhanced magnetic resonance imaging and magnetic resonance urography are noninvasive imaging tests that can be used successfully even when kidney function is abolished. Magnetic resonance imaging has recently been reported to be used for diagnosing MSK with a renal mass.² We propose that unenhanced magnetic resonance imaging is useful for diagnosing MSK.

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