



## CASE REPORT - UNUSUAL PRESENTATION OF RIGHT ATRIAL MYXOMA WITH IGA NEPHROPATHY

### Nephrology

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### ABSTRACT

Right atrial myxomas are rare primary cardiac tumours. Even more uncommon is their manifestation with Nephrotic syndrome. We present a rare case of right atrial myxoma with IgA nephropathy, highlighting the importance of considering cardiac tumours in the differential diagnosis of paraneoplastic glomerulopathies

### KEYWORDS

#### INTRODUCTION

Right atrial myxomas are rare, benign cardiac tumors, accounting for less than 10% of all cardiac myxomas. They are predominantly found in the left atrium. On the other hand, IgA nephropathy, or Berger's disease, is the most common cause of primary glomerulonephritis worldwide. The association of a right atrial myxoma and IgA nephropathy is extremely unusual, and the pathophysiological mechanisms underlying this combination remain poorly understood. In this case report, we describe a patient presenting with renal dysfunction and cardiac symptoms where the diagnosis of both conditions was established.

#### Case Presentation

A 26 year old male with no significant medical history was referred to our center with a 1 month history of bilateral lower limb swelling and facial puffiness. The patient also reported intermittent right-sided chest pain and dyspnea on exertion. There was no history of trauma, infections, or family history of cardiac or renal disease.

#### Clinical Findings

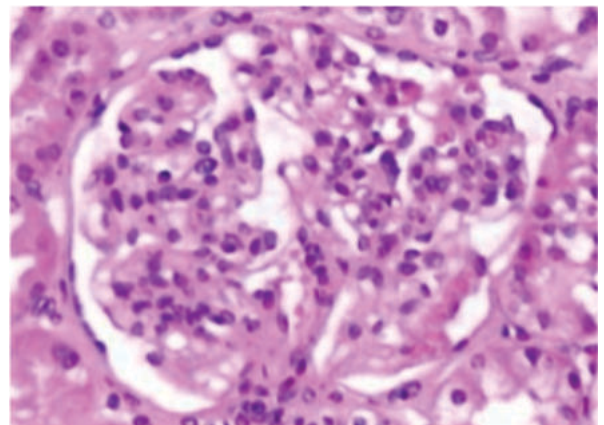
On examination, the patient was conscious oriented. Blood pressure was 150/90 pulse -90 /min patient had bilateral pedal edema pitting type upto kness There was no palpable abdominal mass or lymphadenopathy. The renal examination revealed no palpable kidneys,

#### Investigation

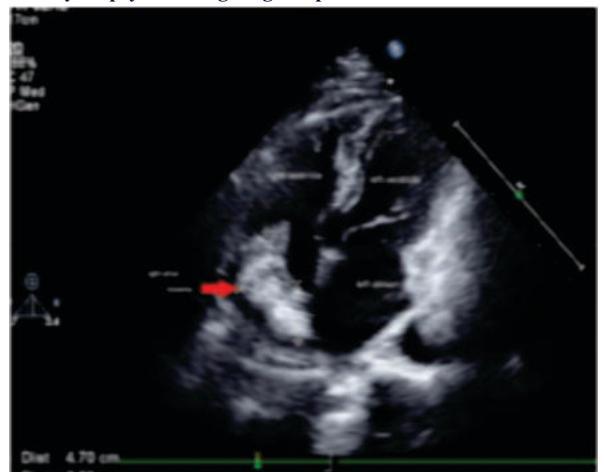
1. Urine analysis revealed proteinuria (3+).
2. Serum creatinine was elevated at 2.4 mg/dL (normal: 0.6-1.2 mg/dL), indicating impaired renal function.
3. Renal biopsy was done which showed mesangial IgA deposits, confirming the diagnosis of IgA nephropathy.
4. Lipid profile- TG-300, cholesterol-350, LDL-250 HDL-50
5. ANA/dsDNA-negative
6. Echocardiography revealed a large right atrial mass (measuring 2.7 x 1.9 mm), which was consistent with a right atrial myxoma. The tumor was mobile, obstructing the tricuspid valve and causing right atrial enlargement.

#### Diagnosis

Diagnosis of IgA nephropathy and right atrial myxoma was done based on kidney biopsy and Echocardiography



Kidney Biopsy – Mesangial IgA Deposits



2D Echo – Right Atrial Myxoma

#### DISCUSSION

The co-occurrence of a right atrial myxoma and IgA nephropathy is

exceptionally rare. Right atrial myxomas present with a wide array of symptoms, including embolism, heart failure, and constitutional symptoms. Although left atrial myxomas are more common, right atrial myxomas can also lead to obstructive symptoms due to their location in the right atrium and tricuspid valve involvement.

In our patient, the renal dysfunction and proteinuria were initially attributed to IgA nephropathy, a glomerular disorder commonly seen in individuals presenting with hematuria, proteinuria, and elevated serum creatinine levels. However, the right atrial mass discovered on echocardiography raised suspicion for a secondary cause of renal involvement due to potential systemic embolization.

While the systemic embolism from a right atrial myxoma can lead to infarctions in various organs, including the kidneys, renal infarctions in the context of myxoma are relatively uncommon. Our patient's imaging did suggest small renal infarcts, which could have contributed to his renal dysfunction. However, the simultaneous diagnosis of IgA nephropathy suggests the possibility of an independent co-occurrence of both conditions.

The exact pathophysiological mechanisms linking IgA nephropathy and myxomas remain unclear, but there may be an underlying immune-mediated component that predisposes patients to both conditions. Chronic inflammatory states, as observed in myxoma patients, may exacerbate renal disease through mechanisms of glomerular injury and immune complex deposition.

#### **Management and Treatment:**

- Patient is started on immunosuppressive therapy (Budesonide) and angiotensin-converting enzyme inhibitors (ACE inhibitors) for his IgA nephropathy.

#### **CONCLUSION**

This case highlights the rare but possible coexistence of right atrial myxoma and IgA nephropathy. Clinicians should maintain a high index of suspicion for cardiac and renal involvement when faced with patients who present with unexplained proteinuria, and right-sided heart failure. Early diagnosis and treatment are crucial to prevent complications. Including systemic embolism and progressive renal failure. Further studies are needed to explore potential shared pathophysiological mechanisms and improve management strategies for patients with these coexisting conditions.

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