

burden of IgAN. Significant continued knowledge gaps were identified for future education, focused on pathophysiology and current treatment.

G-469. COMPLEMENT-MEDIATED TMA IN A PATIENT WITH SCLERODERMA RENAL CRISIS:

Micah Ludwig¹, Matthew Sparks¹. ¹Duke University

Scleroderma renal crisis (SRC) is seen in patients with systemic sclerosis, characterized by acute kidney injury (AKI), hypertension, and thrombotic microangiopathy. Pathophysiology involves injury to endothelial cells causing structural changes to blood vessels, resulting in activation of renin-angiotensin-aldosterone system (RAAS). The rise in blood pressure, coupled with RAAS activation, leads to kidney vasculature damage, culminating in malignant hypertension. Steroid therapy is a known trigger of SRC. We present a case of complement-mediated thrombotic microangiopathy (TMA) in a patient with a scleroderma-like phenotype who developed AKI after steroids.

A 57-year old woman with a history of fibromyalgia, presented with worsening GI symptoms and diffuse pain was found to have AKI. One month prior to presentation she was on steroids for possible psoriatic arthritis. Proposed etiology of AKI was pre-renal due to GI losses, however, no improvement was seen with supportive care.

Labs revealed an elevated ANA (1:2560), hemolytic anemia, and worsening thrombocytopenia. Physical exam noted skin tightness, hyperpigmented lesions, and signs of arthritis. The following differential was considered: autoimmune glomerulonephritis or vasculitis with kidney involvement, lupus nephritis, complement-mediated TMA, and SRC, and additional work-up was pursued. Anti-dsDNA, ANCA, anti-SM, anti-GBM, anti-RNP were negative, C3/C4 normal. HIV, HCV negative. Anti-RNA pol III > 100. Kidney biopsy was consistent with TMA. The biopsy findings suggested endothelial injury and microvascular thrombosis, supporting diagnosis of SRC. Patient was started on captopril, then transitioned to ramipril. Given biopsy findings showing TMA and concern of complement-mediated injury overlapping with SRC, eculizumab was initiated. Following up-titration of captopril blood pressure was controlled, and hemolysis resolved. Several days after eculizumab administration kidney function improved.

This case highlights the challenges in managing SRC, and how physical examination can expand your AKI differential. Additionally, we highlight the potential role steroids play in triggering SRC. Lastly, we acknowledge further study is needed to understand the pathogenesis and optimal management strategies for SRC and related TMA, for example the use of eculizumab in refractory cases.

G-470. SYSTEMIC HEROIN-INDUCED AA AMYLOIDOSIS: AN UNDERRECOGNIZED CLINICAL CONNECTION:

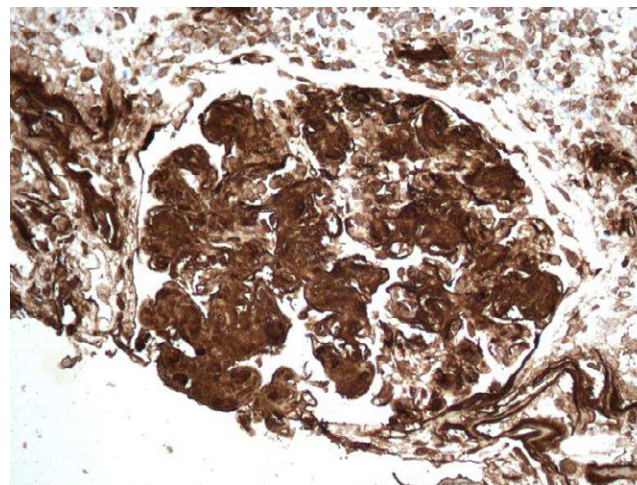
Irvyann Madera¹, Mahmoud Hashim¹, Salomon Chamay¹, Yohannes Achamyeleh¹, Bessy Flores¹. ¹SBH Health System

Illicit drug use can lead to numerous complications such as infections, overdoses and less commonly kidney failure caused by AA amyloidosis. The latter being an underrecognized multi-organ disease. We aim to describe a case of systemic heroin use leading to AA amyloidosis and a vast spectrum of complications.

A 32-year-old Hispanic male with a history of intravenous opioid use and hepatitis C presented to the emergency department with lower extremity swelling and fatigue. Examination was notable for stable vital signs, periorbital edema, needle track marks, and symmetrical +3 edema in lower extremities, extending to the scrotum. Laboratory studies were significant for anemia (Hgb 7.7 g/dL), elevated creatinine (2.6 mg/dL), BUN (34 mg/dL) with an eGFR of 32.6 mL/min. His urine protein to creatinine ratio was 26. Patient was started on IV diuretics and a kidney biopsy was performed. Later on, he had multiple leaves against medical advice.

The renal biopsy showed AA amyloidosis (see figure 1). On repeat admission, his renal function worsened (BUN and creatinine of 135 and 7.3 mg/dL, respectively) with hyperkalemia, leading to hemodialysis. Hospital course was complicated by gastrointestinal bleeding, resulting in hypovolemic shock and respiratory failure, necessitating intubation. Despite treatment efforts, he experienced multiple cardiac arrests. Given the poor prognosis, the family opted to withdraw life support, and the patient passed away shortly after.

In the United States, heroin is considered the most frequently abused opiate, which also has been strongly linked to the development of AA amyloidosis. Herein, we describe a patient with critical complications and different barriers to the treatment in an underrepresented area of the United States. Early intervention, patient education, and addressing barriers to care are critical to improving outcomes.



G-471. SERONEGATIVE RENAL LIMITED ANTI GBM DISEASE WITH COEXISTING ANCA POSITIVITY:

Pratap Kumar Upadrista¹, William Mueller¹, Jessica Lanzkowsky¹, Azzour Hazzan¹, Deepa Malieckal¹. ¹Donald and Barbara Zucker school of medicine

Seronegative anti-GBM is rare and co-existing ANCA positivity with seronegative anti-GBM disease is even rarer. Here, we present an interesting case of anti-GBM disease with p-ANCA positivity is treated with PLEX and Cytoxan with clinical improvement.

72 y/o F with dermatomyositis, Atrial fibrillation, HTN, HLD presented to us with progressive malaise, anorexia, weight loss, dysgeusia of 3 months duration. Prior to the admission, she had elevated P-ANCA (1 in 1280), anti-MPO (84.7) and ANA levels and had a creatinine of 5.24 mg/dL on admission which peaked at 5.99 mg/dL and had microscopic hematuria and proteinuria (UPCR 2.1). Due to concern for p-ANCA vasculitis with renal involvement, we did further workup which showed negative anti-GBM antibodies, 1 in 160 ANA (speckled) with negative dsDNA, 1 in 1280 p-ANCA, MPO antibodies positive and normal serum FLC ratio. Pulse steroids were started after ruling out underlying infection. Kidney biopsy showed necrotizing crescentic GN and IF showing linear IgG consistent with anti-GBM disease, diffuse and moderate IFTA 30% and GS 2/15. We repeated anti-GBM serologies which were negative. Due to anti-GBM disease with negative serologies and elevated p-ANCA levels, patient was started on plasma exchange with oral cyclophosphamide with renal dosing with clinical improvement and proteinuria and hematuria resolution. Pt was discharged with a plan to start Avacopan as outpatient for ANCA vasculitis.

After literature review, we found that there are a few reported cases of seronegative biopsy proven Anti-GBM diseases but many are related to deposition of different immunoglobulins like IgM, IgA etc. ELISA method is known to yield high false negative results. Indirect Immunofluorescence method is better. As we cannot follow the anti GBM abs titers in cases like this unlike anti-GBM positive disease, we have to use clinical picture as a tool to assess improvement.

G-472. DESIGN OF A PATIENT (PT) PLATFORM FOR REAL-WORLD DATA (RWD) ON IPTACOPAN AND/OR ATRASENTAN IN THE UNITED STATES (APPRISE) FOR PTS WITH IMMUNOGLOBULIN A NEPHROPATHY (IGAN) AND COMPLEMENT 3 GLOMERULOPATHY (C3G):

Mohanram Narayanan¹, Briana Ndife², Rahul Khairnar², Jackson Tang³,

Claire Buchan³, Tayler Buchan³, Helen Trenz², Titte R Srinivas², Pietro Canetta⁴. ¹Baylor Scott and White Medical Center; ²Novartis Pharmaceuticals Corporation; ³Asclepius Analytics; ⁴Columbia University. IgAN and C3G are chronic glomerulopathies in which complement dysregulation drives pathology. Iptacopan, a proximal complement inhibitor that specifically binds factor B to inhibit alternative pathway activity, received accelerated approval from the US Food and Drug Administration for IgAN, and a Phase 3 study in C3G (NCT04817618) is completed. Atrasentan is a potent and highly selective endothelin A receptor antagonist with an ongoing Phase 3 IgAN study (NCT04573478). Existing IgAN and C3G RWD sources have limitations like poor geographic and insurance coverage, low availability and linkage of lab and treatment data, and data lag. Here, we describe APPRISE, intended to be the largest, most comprehensive RWD source on US pts prescribed iptacopan and/or atrasentan.

APPRISE will be a US-wide, living data platform including retrospective, longitudinal, deidentified pt-level data from adults with IgAN or C3G prescribed iptacopan and/or atrasentan (on approval). Patients will be recruited through iptacopan/atrasentan distribution networks and provide written consent to be enrolled. APPRISE will capture pt demographic and clinical characteristics, lab values, medical history, treatment patterns, and clinical outcomes. Recruitment of pts with IgAN began after iptacopan approval in 2024 and will expand with future approvals. The study period will extend from treatment initiation for the first pt to end of follow-up for the last pt.

Analyses, including of clinical characteristics and treatment patterns, adherence, and effectiveness, will be conducted continuously and refined as sample sizes become sufficient.

APPRISE will enable rapid collection of varied RWD from pts prescribed iptacopan and/or atrasentan to overcome limitations of existing RWD sources, characterize real-world disease progression and treatment patterns, and support future studies to provide valuable insights into IgAN and C3G outcomes.

G-473. DESIGN OF A DISEASE-MANAGEMENT APP TO MEASURE HOME-REPORTED OUTCOMES (HROS) IN PATIENTS (PTS) WITH IGA NEPHROPATHY (IGAN) AND C3 GLOMERULOPATHY (C3G):

Pietro Canetta¹, Hiba Anwar², Luke Stephens², Rahul Khairnar³, Connie Zhang², Samantha McStocker², Amanda Healey², Jordan Owashi², Helen Trenz³, Anne Alfano⁴, Aran Rice⁵, Briana Ndife³, Mohanram Narayanan⁶. ¹Columbia University; ²Folia Health; ³Novartis Pharmaceuticals Corporation; ⁴N/A; ⁵N/A; ⁶Baylor Scott and White Medical Center

IgAN and C3G are rare, chronic glomerulopathies; there is a lack of published evidence on the humanistic burden of these diseases. Methods that capture the full spectrum of disease burden are needed as pts with the same diagnosis may experience different symptoms or prioritize different aspects of their condition. The Folia Health (FH) app allows pts to track HROS (structured, quantitative observations) that are most relevant to their own disease experience. Here we describe how pt and clinician input was used in the design of 2 condition-specific (IgAN and C3G) platforms within the FH app, for use in future research studies.

Semi-structured interviews were conducted with clinicians and with pts with IgAN or C3G. Interviews were designed to ensure pt and clinician insights shaped key elements of the app design, such as the identification of relevant and/or lesser-known symptoms, treatments, and health-related quality of life (HRQoL) impacts.

Interviews were conducted with 2 clinicians, 3 pts with IgAN, and 3 pts with C3G. Interviews informed a curated list of disease-specific symptoms, treatments, flare events, and HRQoL impacts, all tailored to optimize the FH app for health tracking in these conditions. Symptoms and treatments suggested for tracking will be presented, including symptoms across behavioral, neurological, dermatological, pain, and urinary health domains. These will enable researchers to comprehensively assess treatment impacts beyond traditional pt-reported outcomes.

The condition-specific platforms within the FH app, informed by pt and clinician insights, address the unique needs of pts with IgAN and C3G by enabling the tracking of tailored HROS. In future studies, participants will use the app to capture aspects of their disease that matter most to them, supporting both effective disease management and meaningful research participation.

G-474. THE NEPHRIN LINK TO THE MAXIMUM EFFECT OF MINIMAL CHANGE DISEASE:

Joseph Ogunsulire¹, Amber Bullock¹, Somtochukwu Godwin-Offor¹, Divya Akella¹, Omonigho Sonia Nwoke¹, Leighton James¹. ¹Wellstar, Medical College of Georgia

Nephrotic syndrome (NS) is a constellation of findings which include nephrotic range proteinuria, low albumin, with hyperlipidemia and edema. NS is usually due to podocyte damage, causing the extensive protein leak. It can also lead to acute kidney injury and frequently requires a kidney biopsy for definite diagnosis of underlying cause.

This is a 72-year-old male with a past medical history significant for hypertension (HTN), hyperlipidemia and type 2 diabetes mellitus (DM2) who was sent from primary care providers office for worsening weight gain and shortness of breath with edema. The Patient reported a 50-pound weight gain in the last 4 months, associated with significant joint swelling. He denied rash or ulcer(s).

Result of Initial laboratory showed creatinine of 2.6 mg/dL from baseline of 0.9 mg/dL consistent with acute kidney injury (AKI), Albumin was 2.3 g/dL and urinalysis and urine microscopy showed moderate blood but no RBCs, greater than 600 mg/dL protein with spot urine protein to creatinine ratio of 7.8 g/g. Serology was negative. He ultimately had a kidney biopsy which showed minimal change disease, as well as acute tubular injury and diabetic glomerulopathy. Immunofluorescence showed staining for IgG, nephrin autoantibodies.

Podocytes foot process interdigitate to form the slit diaphragm which are made up of several podocyte-specific proteins including podocin and nephrin. There is increasing evidence and cases showing a link between nephrin antibody and minimal change disease, as well as, FSGS. The primary driving factor(s) for this patient's presentation is/are unclear especially given significant overlapping causes of proteinuric kidney disease in this patient including HTN and DM2.

This case is another example of the link between nephrin antibody, podocytopathies and proteinuric kidney disease. It also highlights the possibility of a multifactorial cause of kidney disease, which requires different treatment strategies.

G-475. RELENTLESS RELAPSE: A CASE OF RECURRENT IDIOPATHIC MEMBRANOUS NEPHROPATHY (MN) IN A KIDNEY TRANSPLANT RECIPIENT:

Ji-Min Park¹, Mai Nguyen¹. ¹Brooke Army Medical Center

MN is a common glomerular disease, which may be associated with significant morbidity and mortality. The course of the disease can be variable, with some patients achieving remission with conservative therapy while 50% of untreated MN eventually lead to end stage kidney disease (ESKD). We present a challenging patient with history of idiopathic MN, who received a kidney transplant and has had multiple relapses of MN despite guideline-directed medical therapy.

Patient is a 59 year-old Caucasian man who presented with nephrotic syndrome in 2000 and was diagnosed with idiopathic MN by kidney biopsy. He did not respond to multiple immunosuppressive agents. He subsequently underwent living-unrelated donor kidney transplantation (LUKT) in 2008 and was maintained on Tacrolimus/Mycophenolate mofetil for immunosuppression. In 2016, he was found to have nephrotic range proteinuria (12g in 24 hr urine) on routine labs.

Serologic workup was negative for anti-PLA2R Ab, anti-THSD7A Ab, hepatitis B/C and HIV. Colonoscopy was normal. Transplant biopsy demonstrated stage II MN so he was treated with Rituximab with resolution of proteinuria with urine protein:creatinine ratio (UPCR) of 0.12. Unfortunately, he experienced increasing proteinuria and elected "empiric" treatment with Rituximab in 2019, which again resulted in complete remission (UPCR 0.17). In 2023, proteinuria returned (UPCR 1.09), and repeat transplant biopsy showed recurrence of MN with evidence of obesity-related changes, transplant glomerulopathy without evidence of rejection, and mild interstitial fibrosis and tubular atrophy (IFTA). Despite achieving clinical remission following each course of Rituximab on a background of Tacrolimus/Mycophenolate/Telmisartan, this patient has exhibited a relapsing course.

It is important to recognize that MN can recur in kidney allografts, and further research is necessary to identify risk factors for recurrence