

CHARACTERISTICS OF PATIENTS WITH COMPLEMENT 3 GLOMERULOPATHY (C3G) IN A US MULTI-CENTER ASSESSMENT

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Introduction

C3G is characterized by C3 deposition in the glomeruli caused by abnormal activation of the alternative complement pathway. There are no approved therapies for C3G. Despite supportive care, C3G remains a progressive form of kidney disease, with novel treatments needed to improve outcomes.

Contemporary datasets on the clinical burden of patients with C3G are limited. Using real-world evidence from electronic medical records, this study describes the characteristics of patients diagnosed with C3G in the US.

Methods

This was a retrospective cohort study of patients included in the US Optum Life Science clinical electronic health record database who were aged ≥ 12 years at C3G diagnosis (per ICD-10 or SNOMED; index date) between 01/2015 and 06/2022. Patients had continuous clinical activity ≥ 12 months before (baseline) and ≥ 6 months after (follow-up) index date, and were followed until death or data end. Patient and clinical characteristics at index date were evaluated using descriptive statistics.

Results

Of 284 patients in the final sample, 78% were White, 11% African American, 2% Asian, and 10% other/unknown. Mean age \pm SD was 49 ± 21 years, 50% were male, and 136/228 (60%) had stage ≥ 3 CKD at index.

At baseline, mean Charlson Comorbidity Index (CCI) score \pm SD was 2.3 ± 2.7 . Of comorbidities included in the CCI, the most common included chronic pulmonary disease (25%) and diabetes without chronic complication (20%). At baseline, hypertension (65%) was the most common C3G-related comorbidity; 10% of patients had undergone dialysis and 12% kidney transplant. Obesity (BMI ≥ 30) was recorded in 100/249 patients (40%). Common C3G-related treatments at

baseline included corticosteroids (54%), ACE inhibitors (41%), ARBs (26%) and immunosuppressants (21%). At baseline, proteinuria was assessed in 126 patients (44%); mean protein/creatinine ratio \pm SD was 2.9 ± 3.9 g/g. Of 100 patients (35%) with available data, 34% had complement C3 level <77 mg/dl.

Conclusion

This contemporary assessment of patients with C3G from a national US cohort identified a population that presented with multiple comorbidities and advanced kidney disease around the time of diagnosis.

This abstract was also submitted for the ASN'23 congress. By submitting the abstract to WCN'24, abstract authors declare that re-submitting the abstract is permitted by the organizers of the previous meeting.

Theme

Better Kidney Health: Preventative and Environmental Science, Population Health Science (Global Kidney Health), Policy/Advocacy

Topic

Epidemiology, Outcomes and Health Service Research Related to CKD or its Complications

Key words (5 maximum)

complement, chronic kidney disease, glomerulopathy

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