Overview of IgA Nephropathy

Immunoglobulin A nephropathy (IgAN), also known as Berger's disease, is a leading cause of chronic kidney disease and the most common primary glomerulonephritis worldwide.[1,2] The majority of patients with IgAN develop **end-stage kidney disease (ESKD)** within their lifetime.[3,4]

What Is IgAN?

- IgAN is a **progressive, autoimmune, chronic kidney disease** that is primarily characterized by mesangial immunoglobulin A (IgA) deposition[1,2]
- The etiologic pathogenesis of IgAN is multifactorial and can be explained by the **four-hit cascade,** the outcome of which is kidney injury that can lead to ESKD[5,6]

Who Is Affected?

- The annual global incidence of IgAN is **2.5 cases per 100,000 persons;** however, this varies by region and ethnicity[12,13]
- There is considerable heterogeneity in outcomes across different races and ethnicities; Asian populations may face **higher risk of severe disease** than White populations[6,12]

Symptoms

- IgAN typically manifests in adults aged **20 to 40 years** and is often diagnosed incidentally[7,8]
- IgAN is a heterogenous disease with variable presentation, and patients frequently experience disease progression **despite being asymptomatic**[1,8,9]

Symptoms may include:

- **Hematuria** (both macroscopic and microscopic)[1]
  - In some patients, macroscopic hematuria is preceded by an upper respiratory infection[10]
- **Proteinuria**[1] • **Fatigue**[11] • **Edema**[11]

Diagnosis and Prognosis

- IgAN is diagnosed with a renal biopsy showing **predominant IgA1 staining**[1,14]
- In observational studies, most patients with IgAN develop **ESKD within 10 to 15 years** of diagnosis[3]
  - Even in patients previously considered "low risk" (proteinuria <1 g/d), there is a substantial risk of kidney failure within 15 years of diagnosis[3]

Optimized Supportive Care

According to current guidelines, the main focus of disease management is to reduce the risk of progression, beginning with optimization of supportive care.[14] The objective of optimized supportive care is to slow down progressive chronic kidney disease and reduce cardiovascular risk.[14]

- Assess cardiovascular risk[14]
- Control blood pressure[14]
- Decrease proteinuria[14]
- Dietary sodium restriction[14]
- Smoking cessation[14]
- Weight control and exercise[14]

Patients at Risk of Disease Progression Despite Maximal Supportive Care

- A significant portion of patients remain at risk of progression despite optimized supportive care[14,15]
- According to guidelines, patients who have proteinuria >1 g/d despite optimized supportive care for ≥90 days may consider enrolling in a clinical trial[14]
- Immunosuppressive therapy may be considered with caution[14]

References:

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