

P0311 **INFECTION-RELATED GLOMERULONEPHRITIS IN ADULTS: TIME FOR A DEFINITIVE PARADIGM SHIFT?**

Chiara Salviani<sup>1</sup>, Mattia Zappa<sup>2</sup>, Guido Jeannin<sup>1</sup>, Mario Gaggiotti<sup>1</sup>, Regina Tardanico<sup>3</sup>, Simona Fisogni<sup>4</sup>, Giovanni Cancarini<sup>5</sup>, Francesco Scolari<sup>5</sup>  
<sup>1</sup>ASST Spedali Civili of Brescia, Nephrology Unit, Brescia, Italy, <sup>2</sup>University of Brescia, Nephrology Unit, Brescia, Italy, <sup>3</sup>University of Brescia, Department of Molecular and Translational Medicine, Section of Pathology, Brescia, Italy and <sup>4</sup>ASST Spedali Civili and University of Brescia, Nephrology, Brescia, Italy

**Background and Aims:** The recent decades have witnessed significant changes in the epidemiology and clinical course of infection-related glomerulonephritis (IRGN). We analyzed the clinicopathological features and long-term outcome of adult patients with biopsy-proven IRGN followed in a large Italian referral centre.

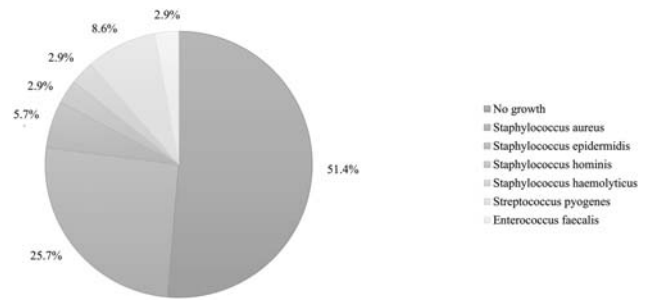
**Method:** We included patients with biopsy-proven IRGN diagnosed from 2000 to 2018. Clinical and laboratory findings, histological features, possible risk factors and therapy were assessed for both renal and patient outcome.

**Results:** Forty-one patients met the inclusion criteria (male:female ratio 3:1, mean age 61 ± 16 years). Smoke habit (47.2%), alcoholism (30.6%), and diabetes (27.5%) were the most common risk factors. The most frequently identified sites of infection were skin, lung and heart (Table 1). *Staphylococci* spp. accounted for 76.5% of positive cultures (Figure 1). Hypocomplementaemia emerged in 48.5% of cases. The most frequent histologic patterns were diffuse proliferative (56.0%) and membranoproliferative (29.3%) glomerulonephritis. Haemodialysis was required by 22.5% of patients at inception. Two thirds of patients developed chronic kidney disease; half of them reached end-stage renal disease (ESRD). By multivariate analysis ESRD was associated with diabetes (HR 13.7; 95% CI, 1.6-121.0; p=0.018), crescents (HR 25.2; 95% CI, 2.7-235.7; p=0.005), and interstitial fibrosis (HR 31.0; 95% CI, 3.3-287.3; p=0.003). Male gender (HR 12.7; 95% CI, 10.8-14.6; p=0.008) hypertension (HR 40.8; 95% CI, 38.6-43.1; p=0.001), gross haematuria (HR 11.8; 95% CI, 9.4-14.2; p=0.047), need for haemodialysis at onset (HR 16.3; 95% CI, 14.7-17.8; p<0.0001), and interstitial infiltrate (HR 13.3; 95% CI, 11.6-15.0; p=0.003) significantly affected survival. Corticosteroids did not affect prognosis.

**Conclusion:** While traditionally considered a “benign” disease with a favorable course in children, IRGN is a potentially severe disease in adults, particularly when a background of major comorbidities and older age are present. A significant proportion of patients does not recover renal function, with a remarkable risk of ESRD.

**Table 1.** Sites of infection. Three patients (11.5%) presented multiple infections

	N° / TOT	%
Pneumonia	9/26	34.6
Skin infection	7/26	26.9
Endocarditis	6/26	23.1
Bone infection	3/26	11.5
Pharyngitis	1/26	3.8
Cholangitis	1/26	3.8
Prosthetic aortic graft infection	1/26	3.8
Urinary tract infection	1/26	3.8
Granulomatous rhinitis overinfection	1/26	3.8



**Figure 1.** Results from microbiological tests.