Background: Although hypocomplementemia has been frequently reported in IgG4-related kidney disease (IgG4-RKD), few studies have investigated differences in the clinicopathological features of IgG4-RKD with and without hypocomplementemia in a relatively small cohort[1,2].

Objectives: To compare the clinicopathological features of Japanese patients with and without hypocomplementemia in IgG4-RKD.

Methods: We retrospectively examined the clinicopathological features of 60 patients with definitively diagnosed IgG4-RKD, collected from the institutions associated with the Japan IgG4-RKD working group between December 2010 and May 2019, with reference to the presence of hypocomplementemia.

Results: Among the patients included, 42 (70%) had hypocomplementemia. In the latter group, serum levels of IgG and non-IgG4 IgG, calculated as total IgG minus IgG4, were significantly higher (mean IgG level, 3832 vs 2626 mg/ml, p = 0.005, mean non-IgG4 IgG level, 2775 vs 1827 mg/ml, p = 0.000). Renal function at diagnosis tended to be lower (mean eGFR level 42.4 vs 53.6 ml/min), although not to a significant degree (p = 0.07). There were no significant inter-group differences in the levels of serum IgG4 and IgG, or in the number of extra-renal involved organs. Renal pathology specimens were obtained from 53 patients, 70% of whom had hypocomplementemia. In the hypocomplementemia group, light microscopy demonstrated a significantly broader extent of interstitial inflammatory cell infiltration (p = 0.035), and immunofluorescence revealed a higher frequency of IgG or complement deposition on the renal tubular basement membrane (p = 0.048). C1q deposition on the TBM was evident only in the hypocomplementemia group. There was no significant inter-group difference in the presence of storiform fibrosis, the degree of interstitial fibrosis, the number of infiltrating IgG4-positive cells, or the frequency of membranous glomerulonephritis.

Conclusion: Hypocomplementemia in IgG4-RKD is associated with elevated levels of IgG subclasses other than IgG4, and may be related to progression of renal inflammation.

REFERENCES:

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CERTOLIZUMAB PEGOL IN UVEITIS: RETENTION PROBABILITY AND CAUSES OF DISCONTINUATION.

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Background: A personalized disease-specific treatment for non-infectious uveitis (NIU) (NiU) is challenging. Around 50% of adults with NIU who required classic DMARDs or anti-TNF alimumab in clinical trials, failed at 6 months during open label phase [1,2]. Therefore, to investigate treatment alternatives for NiU are most needed.

Objectives: To study Certolizumab pegol (CZP) retention rate (RR) at 24 months in NiU and susceptibility factors for discontinuation.

Methods: Adults with NiU who received CZP for this indication were included. Demographics, clinical and therapeutic data was recorded from Nov 2016 to Nov 2017. The primary endpoint assessed was CZP RR at 24 months. Causes and susceptibility factors for definitive discontinuation of CZP were analyzed as well. CZP RR was calculated with the Kaplan-Meier method, Log-rank test was used for the univariate, and the Cox proportional hazard model was implemented for the multivariate analysis.

Results: Thirty patients with a median of 41 (IQR 16) years, 18 (60%) females, were included. NIUs were bilateral in 19 (63%) patients and were active at CZP onset in 20 (71%). Half of the patients suffered from non-anterior NIUs, and etiologically 2 (7%) were unclassifiable, 7 (23%) had ocular syndromes, and 21 (70%) were associated to systemic disorders. Seven (23%) patients were bio-naive, whereas 23 (77%) started CZP as a 2nd (5, 17%) or ≥ 3rd (18, 60%) biologic. With a median follow-up of 21.2 (Range 0.2 to 54.8) months, 12 (40%) patients discontinued CZP, 6 (20%) due to adverse events and 6 (20%) due to lack of efficacy. The overall CZP RR at 24 months was 53.6%, with a median Retention Time (RT) of 27.1 months. In the multivariate analysis, CZP started as a 1st biological (HR 0.053, 95%CI 0.003 to 0.809; p = 0.035), and male gender (HR 0.1, 95%CI 0.015 to 0.694; p = 0.02) were protective factors for discontinuation. CZP RR at 24 months as a 1st biological was 100% with a median RT of 27.1 months. Conversely, CZP RR at 24 months as a ≥2nd line was 41.1% with a median RT of 17.1 months. When given as a 1st biological, one (14%) patient discontinued CZP due to loss of efficacy at 27.1 months. Conversely, discontinuation of CZP when administered in ≥2nd line was more frequent, either due to lack of efficacy in 5 (22%) patients or adverse events (AEs) in 6 (26%) (Figure 1).

Figure 1. Retention rate of Certolizumab pegol in bio-naive and bio-experienced patients with non-infectious uveitis. Abbreviations: DRT, Drug Retention Time; LTFU, lost to follow-up; DRR, Drug Retention Rate; PAR, Patients at Risk; AE, adverse event.

Conclusion: CZP in NiU showed an excellent retention rate at 24 months in bio-naive patients. However, it was more than halved when CZP was started as a ≥2nd biological. Discontinuation of CZP in bio-experienced patients was due to lack or loss of efficacy in 22% and to adverse events in an additional 26% of patients.

REFERENCES:


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