Rituximab as third line therapy in IgG4-Related Disease: experience from a multi-centre UK cohort

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1. BACKGROUND AND RATIONALE

- IgG4-RD is a multi-organ fibro-inflammatory B-cell mediated immune-mediated disorder
- Corticosteroids are first line therapy with 98% response. Relapse on steroid discontinuation is up to 60%. Leads to organ damage/failure.
- Rituximab (anti-CD20 chimeric monoclonal antibody) received UK NICE approval as third-line therapy for intolerance/relapse on steroids and immunomodulators.

2. AIMS AND OBJECTIVES

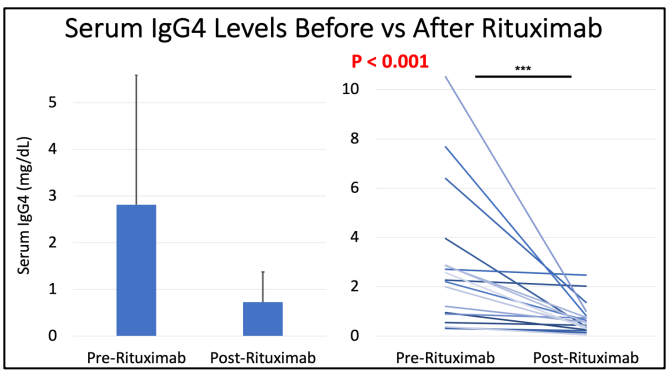
To assess the indications, clinical response and outcome to Rituximab in a multi-centre UK cohort of IgG4RD patients.

3. METHODS

- Retrospective data collected from five UK tertiary centres for IgG4RD patients that received Rituximab therapy
- Wilcoxon paired test was used for numerical variables.

4. RESULTS

52 patients received Rituximab for IgG4RD (see tables and figures). Serum IgG4 levels fell with Rituximab therapy (pre-treatment median 4.99g/L, post-treatment median 3.33g/L; p<0.001). The median number of cycles received was 1 pair (range 1-8). The majority had on-demand infusions (77%) and 10 (23%) received maintenance therapy.



Baseline characteristics N=52 from 5 centres	Mean (range)
Age at diagnosis (nearest year)	58 (19 to 79)
Age at Rituximab (nearest year)	64 (20 to 85)
Follow-up length (nearest month)	84 (19 to 184)
Duration between diagnosis and Rituximab (nearest month)	40 (1 to 148)

	N (%)
Male	39 (75%)
Raised serum IgG4 at diagnosis	39 (75%)
Multi-organ disease	40 (77%)

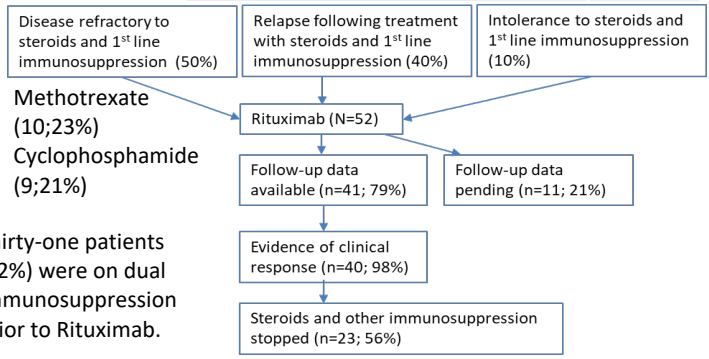
Disease phenotype	N (%)
Systemic	27 (52%)
Head and Neck	13 (25%)
Hepatopancreatobiliary	10 (19%)
Retroperitoneal and aorta	2 (4%)

Treatment preceding Rituximab included:

- Prednisolone (42; 81%)
- Azathioprine (20; 39%)
- Mycophenolate (17; 33%)
- Methotrexate (10;23%)
- Cyclophosphamide (9;21%)

Thirty-one patients (72%) were on dual immunosuppression prior to Rituximab.

Adverse effects	N (%)
None reported	35
Infection	4 (10%)
Hypogammaglobulinaemia (no rescue IV immunoglobulins required)	5 (12%)



CONCLUSION

Rituximab was safe and effective as third-line therapy for disease relapse in IgG4RD in this multi-centre prospective UK cohort, allowing discontinuation of steroid/conventional immunosuppression in the majority.