Patient-reported outcome and experience measures in Granulomatosis with polyangiitis managed with Rituximab

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Introduction

- Granulomatosis with polyangiitis (GPA) is a rare autoimmune disease characterised by granulomatous inflammation of small- to medium-sized blood vessels.
- Any organ may be affected, with ocular symptoms occur in 16–78% of patients (1).

- Rituximab is a monoclonal antibody targeting CD20-positive B-cells and is an effective treatment option that is typically reserved for those with relapsing or refractory GPA (2).

- Clinical outcomes of orbital GPA managed with rituximab are well documented, yet patient-reported outcome and experience measures (PROMs and PREMs) remain underutilised.
- These tools provide valuable insights into treatment impact on quality of life, symptom burden, and patient satisfaction, facilitating personalised, effective, and holistic care (3).
- This study aims to evaluate PROMs and PREMs in patients with orbital GPA undergoing rituximab therapy.

Methods

- Six patients (3 x ♂, 3 x ♀, ages 52-70 years) with orbital GPA who had completed at least six months of rituximab therapy were included.
- Standardised telephone interviews utilised a 36-question survey on symptomatology, adverse effects, and quality of life.
- The collected data was descriptively analysed due to the small sample size.

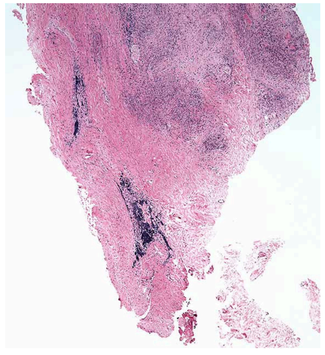


Image 1: . Hematoxylin and eosin stain. Biopsy demonstrating a patchy infiltrative pattern.
The sclerotic tissue shows a scattered chronic granulomatous inflammatory infiltrate and focal areas of necrosis (4).

Results

Ophthalmic and Sinus Outcomes
- *No cases of new or worsening proptosis or diplopia.*
- *83.3% reported no eye discomfort or pain.*
- *83.3% reported no worsening of vision (1 patient had visual decline due to cataract progression).*
- *66.7% (4 patients) continued to experience GPA-related sinus/nasal symptoms.*

Safety and Tolerability
- *Rituximab was well tolerated overall.*
- *No significant infections reported; 50% had mild, potentially population-level infections (e.g., seasonal flu) , 50% had no infections.*
- *One patient reported mild symptoms of fatigue, joint/muscle stiffness, and hair loss.*
- *No cases of infusion reactions, skin reactions, or gastrointestinal side effects.*

Treatment Background and Perceived Effectiveness
- *2 patients started Rituximab as first-line therapy.*
- *4 patients had prior treatments:*
  - *Cyclophosphamide (3 patients),*
  - *Azathioprine (2 patients),*
  - *Methotrexate (1 patient),*
  - *Mycophenolate mofetil (1 patient).*
- *All participants reported greater effectiveness, fewer side effects, and better symptom control with Rituximab.*
- *Universal preference to continue Rituximab due to significant improvement in daily life.*

Patient Experience and Satisfaction
- *All patients felt well informed, involved in decisions, and found infusion scheduling convenient.*
- *Infusion sessions were comfortable with excellent staff communication and no delays.*
- *Rituximab had a positive or very positive impact on quality of life.*
- *All participants were satisfied or very satisfied with their therapy.*

Areas for Improvement
- *50% felt emotional needs were partially addressed.*
- *66.7% were unaware of available support services like counselling, indicating a gap in holistic care.*



Image 2: T2 weighted MRI brain of a patient with orbital GPA.
Note the hyperintense lesion between the medial rectus and the lamina papyracea in the left orbit (4).

Conclusion

- *Rituximab was effective in managing orbital symptoms of GPA, though it did not reverse proptosis or nasal/sinus symptoms in this cohort.*
- *Rituximab was well tolerated, with no significant adverse effects.*
- *Patients reported high satisfaction:*
  - *Positive treatment outcomes*
  - *Excellent support during consultations and infusions*
- *Emotional support was limited for some patients*
- *Lack of awareness of support services indicated room for improvement in holistic care*

Limitations:
- Small sample size, and therefore limited generalisability and high impact of outliers.
- Limited temporal scope, potential for recall bias.

These findings highlight the need for larger-scale ssutdies to confirm the results and ensure broader applicability.

References

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