## Documents

Cottu, A.[a] , Groh, M.[b] , Desaintjean, C.[c] , Marchand-Adam, S.[d] , Guillevin, L.[a] , Puechal, X.[a] , Beaumesnil, S.[e] , Lazaro, E.[e] , Samson, M.[f] , Taille, C.[g] , Durel, C.-A.[h] , Diot, E.[i] , Nicolas, S.[i] , Guilleminault, L.[j k] , Ebbo, M.[l] , Cathebras, P.[m] , Dupin, C.[n] , Yildiz, H.[o] , Belfeki, N.[p] , Pugnet, G.[q] , Chauvin, P.[r] , Jouneau, S.[s] , Lifermann, F.[t] , Martellosio, J.-P.[u] , Cottin, V.[c] , Terrier, B.[a v]

**Benralizumab for eosinophilic granulomatosis with polyangiitis**

(2023) *Annals of the Rheumatic Diseases*, 82 (12), pp. 1580-1586. Cited 11 times.

**DOI:** 10.1136/ard-2023-224624

[a] Department of Internal Medicine, National Referral Center for Rare Systemic Autoimmune Diseases, Hospital Cochin, Paris, France
[b] National Referral Center for Hypereosinophilic Syndrome (CEREO), Department of Internal Medicine, Hopital Foch, Suresnes, France
[c] Department of Respiratory Diseases, Hospital for Cardiologie and Pneumology Louis Pradel, Lyon, France
[d] Service de Pneumologie et d'Explorations Fonctionnelles Respiratoires, Chru de Tours, Tours, France
[e] Department of Internal Medicine and Infectious Diseases, University Hospital Centre, Bordeaux, France
[f] Department of Internal Medicine and Clinical Immunology, University Hospital Centre, Dijon, France
[g] Reference Center for Rare Pulmonary Diseases, University of Paris Cité, Inserm 1152, Hospital Bichat - Claude-Bernard, Paris, France
[h] Department of Internal Medicine, Edouard Herriot Hospital, Lyon, France
[i] Department of Internal Medicine, Chru de Tours, Tours, France
[j] Department of Respiratory Medicine, University Hospital Centre Toulouse, Toulouse, France
[k] Toulouse Institute for Infectious and Inflammatory Diseases (Infinity), Inserm U1291, Cnrs U5282, Toulouse 2 University, Toulouse, France
[l] Departement of Internal Medicine, Assistance Publique - Hôpitaux de Marseille, Marseille, France
[m] Department of Internal Medicine, Chu, Saint-Etienne, France
[n] Reference Center for Rare Pulmonary Diseases, University of Paris Cité, Hospital Bichat - Claude-Bernard, Paris, France
[o] Department of Internal Medicine and Infectious Diseases, Cliniques Universitaires Saint-Luc, Bruxelles, Belgium
[p] Department of Internal Medicine and Clinical Immunology, Groupe Hospitalier Sud Ile-de-France, Melun, France
[q] Department of Internal Medicine and Clinical Immunology, Chu Toulouse Rangueil, Toulouse, France
[r] Department of Respiratory Diseases, University Hospital Centre Rennes, Rennes, France
[s] Department of Respiratory Diseases, Irset Umr 1085, Rennes 1 University, Pontchaillou Hospital, Rennes, France
[t] Department of Internal Medicine, Centre Hospitalier de Dax, Dax, France
[u] Department of Internal Medicine, Centre Hospitalier Universitaire de Poitiers, Poitiers, France
[v] Université Paris Cité, Paris, France

**Abstract**
Background Benralizumab is effective in the treatment of eosinophilic asthma and is being investigated for the treatment of other eosinophil-associated diseases. Reports on the use of benralizumab for the treatment of eosinophilic granulomatosis with polyangiitis (EGPA) are limited to case reports and small case series. Methods We conducted a multicentre, retrospective study including EGPA patients treated with off-label benralizumab. The primary endpoint was the rate of complete response defined as no disease activity (Birmingham Vasculitis Activity Score=0) and a prednisone dose ≤4 mg/day. Partial response was defined as no disease activity and a prednisone dose ≥4 mg/day. Results Sixty-eight patients were included, including 31 (46%) who had previously received mepolizumab. The use of benralizumab was warranted by uncontrolled asthma in 54 (81%), persistent ear, nose and throat (ENT) manifestations in 27 (40%) and persistent glucocorticoids (GCs) use in 48 (74%) patients. Median (IQR) follow-up after starting benralizumab was 23 (9-34) months. Thirty-three patients (49%) achieved a complete response, 24 (36%) achieved a partial response and 10 (15%) did not respond. Among the 57 patients who initially responded, 10 (18%) eventually required further line treatments. GCs were discontinued in 23 patients (38%). Prior mepolizumab use was associated with a higher rate of primary failure (26.7% vs 5.4%, p=0.034) and less frequent GCs discontinuation (14.8% vs 55.9%, p=0.001). Vasculitis flares occurred in 7 patients (11%) and were associated with histological evidence of vasculitis and/or antineutrophil cytoplasmic antibodies positivity at benralizumab initiation (p=0.004). Conclusions Benralizumab appears to be an effective treatment for refractory asthma or ENT manifestations in EGPA and allows GC-sparing. However, its efficacy was lower after prior failure of mepolizumab. 

**Author Keywords**
Biological Therapy; Glucocorticoids; Systemic vasculitis; Treatment

**Index Keywords**
benralizumab, mepolizumab, neutrophil cytoplasmic antibody, prednisone, benralizumab, glucocorticoid; adult, Article, asthma, Churg Strauss syndrome, controlled study, disease exacerbation, drug efficacy, drug safety, ear nose throat disease, female, human, major clinical study, male, retrospective study, treatment response, asthma, complication, Wegener granulomatosis; Asthma, Churg-Strauss Syndrome, Glucocorticoids, Granulomatosis with Polyangiitis, Humans, Prednisone, Retrospective Studies

**Correspondence Address**
Terrier B.; Department of Internal Medicine, France; email: benjamin.terrier@aphp.fr

**Publisher:** BMJ Publishing Group

**ISSN:** 00034967
**CODEN:** ARDIA
**PubMed ID:** 37550002
**Language of Original Document:** English
**Abbreviated Source Title:** Ann. Rheum. Dis.
2-s2.0-85168952915
**Document Type:** Article
**Publication Stage:** Final
**Source:** Scopus