Editorial

Consensus Task Force recommendations for evaluation and management of Eosinophilic granulomatosis with polyangiitis syndrome (Churg–Strauss)

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The eosinophilic granulomatosis with polyangiitis (EGPA) syndrome, known also as Churg–Strauss syndrome, is a systemic necrotizing vasculitis that affects small-to-medium-sized vessels.[1] Its main characteristic feature is its association with severe asthma, and blood and tissue eosinophilia that differentiates it from the other antineutrophil cytoplasm antibody (ANCA)-associated vasculitides, granulomatosis with polyangiitis (Wegener's) and microscopic polyangiitis. Antineutrophil cytoplasmic antibodies (ANCA) are positive in ~40% of the cases and more often in patients with clinical manifestations due to small-vessel vasculitis.[2]

In the light of the increasing number of high-quality clinical trials conducted on ANCA-associated vasculitides and the unmet need for consensus guidelines for EGPA, the European Respiratory Society and the Foundation for the Development of Internal Medicine in Europe commissioned the EGPA Consensus Task Force in order to establish recommendations for the definition, diagnosis, investigation and management of EGPA.[3]

The EGPA Consensus Task Force experts comprised 8 pulmonologists, 6 internists, 4 rheumatologists, 3 nephrologists, 1 pathologist and 1 allergist from 5 European countries and the USA. The committee used a modified Delphi process and an extensive literature search with publications assigned according to the level of evidence.

Twenty-two recommendations concerning the diagnosis, initial evaluation, treatment and monitoring of EGPA patients were established. These recommendations give physicians tools for effective and individual management of EGPA patients, and provide guidance for further targeted research, should not be considered definitive guidelines but rather as consensus statements derived from up-to-date data on EGPA. More research is needed to continue to improve management of this complex disease.[3]

A summary of the recommendations for the diagnosis, follow-up and management of EGPA with corresponding levels of evidence are shown in table 1. Some of the recommendations have low evidence levels, because

TABLE 1. The EGPA Consensus Task Force recommendations Level of Evidence.

n	Recommendation	Evidence
1.	EGPA should be managed in collaboration with, or in, centers with established expertise in the management of small- and medium-sized-vessel vasculitides.	NA
2.	Serologic testing for toxocariasis and HIV, specific IgE and IgG dosages for *Aspergillus spp.*, search for *Aspergillus spp.* on a sputum and/or bronchoalveolar lavage fluid, tryptase and vitamin B12 dosages, peripheral blood smear (looking for dysplastic eosinophils or blasts) and chest CT scan is the minimal initial differential diagnosis work-up; additional investigations should be guided by patient-specific clinical findings and extensive search for causes of hypereosinophilia should be considered.	NA
3.	Obtaining biopsies from patients with suspected EGPA is encouraged.	NA
4.	ANCA testing (with indirect immunofluorescence and ELISA) should be done for patients with suspected EGPA.	NA
5.	There is currently no reliable biomarker to measure EGPA activity.	NA
6.	Once EGPA is diagnosed, evaluating possible lung, kidney, heart, GI and/or peripheral nerve involvement is recommended.	NA
7.	Definition of EGPA remission: the absence of a clinical systemic manifestation (excluding asthma and/or ENT).	NA
8.	Definition of EGPA relapse: the new appearance or recurrence or worsening of clinical EGPA manifestation(s) (excluding asthma and/or ENT) requiring the addition, change or dose increase of glucocorticoids and/or other immunosuppressants.	NA
9.	Use of glucocorticoids is appropriate to achieve EGPA remission; the dose prescribed should be ~1 mg/kg/day prednisone for patients with organ- or life-threatening manifestations.	A
10.	Patients with life and/or organ-threatening disease manifestations (i.e., heart, GI, central nervous system, severe peripheral neuropathy, severe ocular disease, alveolar hemorrhage and/or glomerulonephritis) should be treated with a remission-induction regimen combining glucocorticoids and an additional immunosuppressant (e.g. cyclophosphamide).	B
11.	Maintenance therapy (with azathioprine or methotrexate) is recommended for patients with life- and/or organ-threatening disease manifestations.	C
12.	Glucocorticoids alone may be suitable for patients without life and/or organ-threatening disease manifestations; additional immunosuppression can be considered for selected patients for whom the prednisone dose cannot be tapered to 7.5 mg/day after 3–4 months of therapy or patients with recurrent disease.	C
13.	Plasma exchanges are generally not effective in EGPA but can be considered for selected patients with ANCA and rapidly progressive glomerulonephritis or pulmonary–renal syndrome.	D
14.	Rituximab can be considered for selected ANCA-positive patients with renal involvement or refractory disease.	C
15.	IVIg can be considered a second-line therapy for patients on glucocorticoids (and/or other immunosuppressants) with EGPA flares refractory to other treatments or during pregnancy; in the context of drug-induced hypogammaglobulinemia with severe and/or recurrent infections, Ig-replacement may be considered.	C
16.	Interferon-alpha may be reserved as second- or third-line drug for selected patients.	C
17.	Leukotriene-receptor antagonists can be prescribed, if needed, for EGPA patients.	B
18.	Vaccinations with inactivated vaccines and against influenza and pneumococci should be encouraged; live-attenuated vaccines are contraindicated in patients taking immunosuppressants, and/or ≥20 mg/day of prednisone.	D
19.	Implementation of patient educational programs is encouraged.	D
20.	Patients with peripheral nerve involvement and motor deficit(s) should routinely be referred to a physiotherapist.	D
21.	Patients should be advised to avoid tobacco smoke and irritants.	D
22.	Venous thromboembolic events and pulmonary embolism should be treated according to general guidelines for the management of thromboembolic disease; it is unknown whether anticoagulation should be prolonged in selected patients with persistent or recurring disease activity.	D

From: ref. 3 with permission.

Abbreviations: EGPA: eosinophilic granulomatosis with polyangiitis (Churg–Strauss); ANCAs: antineutrophil cytoplasm antibodies; CT: computed tomography; ENT: ear, nose & throat; HIV: human immunodeficiency virus; IVIg: intravenous immunoglobulins; NA: not applicable.

they were derived from existing data on EGPA-related diseases, rather than EGPA itself, and/or are opinion-based. Thus, future (especially prospective) EGPA-specific studies are needed.[3]

It is interesting that mepolizumab (Nucala), a humanized monoclonal antibody targeting IL5, the major eosinophil-survival factor, is effective against eosinophilic asthma[4,5], was recently approved from the FDA[6] and holds promise for EGPA.[7]

To date, the results of only 2 pilot studies showed that mepolizumab successfully treated refractory EGPA, thereby achieving glucocorticoid-sparing[8], and maintained remission without further conventional immunosuppression.[9]

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