Guidelines for the Management of Primary Systemic Vasculitis

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Antineutrophil cytoplasmic antibody (ANCA)-associated vasculitis (AAV) comprises a group of rare, potentially life-threatening conditions that can be fatal if untreated. These diseases include granulomatosis with polyangiitis (GPA), (previously known as Wegener granulomatosis), Churg-Strauss syndrome (CSS), and microscopic polyangiitis (MPA). These complex conditions are characterized by systemic illness and multisystem disease, with vasculitis that can lead to aneurysm formation, hemorrhage, and infarction [Watts RA, Scott DG. *Curr Opin Rheumatol* 2003]. The kidneys, heart, lungs, upper and lower airways, and the nervous system can be affected by AAV.

In this presentation, Janice Mooney, MSc, RGN, University of East Anglia, Norwich, United Kingdom, discussed the management of AAV. AAV conditions are rare, with an estimated annual incidence of 20 per 1 million in Europe [Ntatsaki E. *Rheum Dis Clin North Am* 2010]. Historically, AAV had a poor prognosis, but available treatments have transformed it into a chronic relapsing condition.

EULAR published recommendations for the management of primary AAV in 2009 [Mukhtyar C. *Ann Rheum Dis* 2009]. Management of AAV requires a multidisciplinary approach. The aims of treatment are to induce remission, preserve organ function, reduce mortality, and reduce treatment-related toxicity. Treatment should begin as early as possible to avoid irreversible organ damage. Management is divided into 3 phases: induction of remission, maintenance, and long-term follow-up. The Birmingham Vasculitis Activity Score is used to assess organ involvement and the severity of disease, which guides the choice of an immunosuppressive regimen.

The EULAR guidelines have categorized AAV severity of disease into 5 categories: localized, early systemic, generalized, severe, and refractory (Table 1).

Cyclophosphamide and steroids are considered the first choice of treatment for induction of remission. Once remission is achieved, azathioprine is the safest maintenance therapy [Ntatsaki E. *Rheumatology* 2011]. Routine, careful follow-up is required for assessment of organ function and damage, early detection of relapse, and diagnosis of treatment toxicity.

Table 1. European Vasculitis Study Group (EUVAS) Disease Categorization of AAV.

Category	Definition
Localized	Upper and/or lower respiratory tract disease without any other systemic involvement or constitutional symptoms
Early systemic	Any, without organ-threatening or life-threatening disease
Generalized	Renal or other organ-threatening disease, serum creatinine <500 µmol/L
Severe	Renal or other vital organ failure, serum creatinine >500 µmol/L
Refractory	Progressive disease unresponsive to glucocorticoids and cyclophosphamide

The EULAR recommended treatments for AAV, according to disease severity, are shown in Table 2.

Table 2. EULAR Guidelines for the Treatment of AAV.

Disease Severity	Induction Therapy	Maintenance Therapy
Localized	Cyclophosphamide or methotrexate and steroids	Low-dose steroids plus azathioprine, leflunomide, or methotrexate
Early systemic	Cyclophosphamide or methotrexate (oral or subcutaneous) and steroids	Low-dose steroids plus azathioprine or methotrexate
Generalized	Cyclophosphamide (oral or IV) and steroids	Low-dose steroids plus azathioprine, methotrexate, or leflunomide
Severe	Cyclophosphamide and steroids plus plasma exchange	Low-dose steroids plus azathioprine or methotrexate
Refractory	Rituximab Intravenous immunoglobulin, deoxyspergualin, infliximab, mycophenolate Enroll in trials	No consensus