

SEVERITY OF ANCA-ASSOCIATED VASCULITIS AND RESPONSE TO INDUCTION THERAPY IN NEW AND RELAPSING PATIENTS – DATA FROM REAL WORLD PRACTICE

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INTRODUCTION

ANCA-associated vasculitis (AAV) presents with a variety of clinical signs and symptoms and the level of severity varies between patients. Some patients may have localised disease whereas others can present with an acute systemic illness.

Current clinical guidelines in Europe recommend standard induction regimens for patients with systemic organ or life threatening AAV. In the most severe systemic patients with pulmonary haemorrhage or rapidly progressive glomerulonephritis, patients may receive plasma exchange. Another group of patients may have more localised disease without involvement of vital organ, in particular without renal disease. Clinical trials define disease severity carefully to include or exclude specific groups of patients and this may involve the use of scoring scales such as BVAS. The initial aim of therapy in AAV is to achieve remission quickly whilst avoiding treatment related toxicity.

This study examined real world practice of AAV treatment in Europe to understand the spectrum of AAV severity and to examine the response to remission induction therapy over the first 12 months of treatment.

METHODS

STUDY DESIGN. Retrospective clinical audit of healthcare records from incident and relapsing AAV patients managed by 399 physicians (240 nephrologists, 120 rheumatologists and 20 internal medicine physicians) who routinely manage incident AAV patients (France, Germany, Italy and UK).

INCLUSION & EXCLUSION CRITERIA. Physicians selected incident or relapsing adult patients with granulomatosis with polyangiitis (GPA) or microscopic polyangiitis (MPA) who had initiated remission induction therapy between November 2014 and February 2017. Patients had at least 6 months of therapy and continuous care by the physician over the time of follow, were over 18 years, had a confirmed diagnosis of AAV for at least 12 months, and had received at least one course of induction therapy to achieve remission.

DATA COLLECTION AND ANALYSIS. Physicians completed up to 3 programmed patient record forms (PRF) - this online data collection tool was designed to gather clinical outcome data over the first 12 months of AAV therapy. Data were collected relating to baseline presentation with AAV then outcomes at 1, 3, 6 and 12 months. Descriptive statistics were used to analyze the data

PARTICIPANTS. 1197 patients were studied in total of which 929 AAV patients were incident patients and 268 were relapsing patients - they commenced remission induction therapy following incident diagnosis or relapse. Incident patients – 54.4% were classified as GPA and 45.6% MPA. Relapsing patients - 54.1% were classified as GPA and 45.9% MPA. These AAV patients were analysed in detail to describe the clinical outcomes and adverse outcomes

RESULTS

Figure 1 – AAV disease severity varies in incident and relapsing patients and nephrologists tend to manage more severe patients.

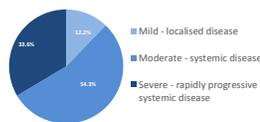
BVAS was collected in under 12% of patients so severity was defined as;

Mild – localized disease with no systemic symptoms

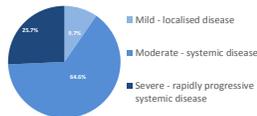
Moderate – systemic disease with lung and/or renal involvement

Severe – rapidly progressive systemic disease with lung and/or kidney involvement

Severity at start of treatment in new patients



Severity at start of treatment in relapsing patients



	Nephrologist	Rheumatologist
Mild	8.2%	16.5%
Moderate	52.2%	62.1%
Severe	39.6%	21.5%

Comorbidity and treatment for remission induction. Comorbidity was common in all AAV severity groups but was more common in severe patients (71.8% had at least one comorbidity) than mild patients (55.1% had at least one).

There were differences in the initial remission induction therapy given;

Severe – 72.4% cyclophosphamide, 28.4% rituximab and 86.8% glucocorticoids

Moderate – 49.4% cyclophosphamide, 29.6% rituximab and 80.4% glucocorticoids

Mild – 23.2% cyclophosphamide, 26.1% rituximab and 69.6% glucocorticoids but 13.8% methotrexate and 8% each MMF and azathioprine

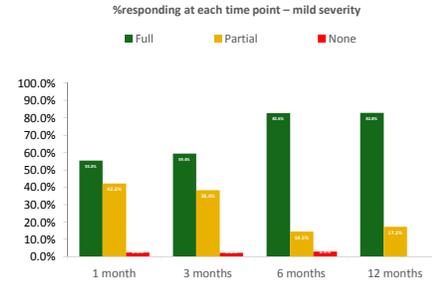
Figure 2 – Clinical response to therapy depends on disease severity but is often slow or not combined - All patients are combined for this analysis

As BVAS was not measured routinely in clinical practice, response to therapy was categorized as;

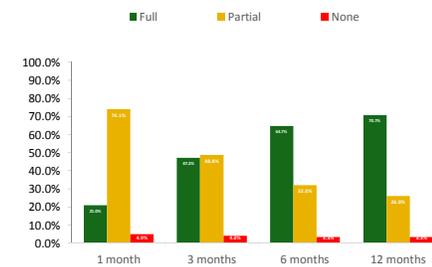
Full – no AAV activity and glucocorticoid taper on track

Partial – reduction in AAV activity and major organ damage arrested

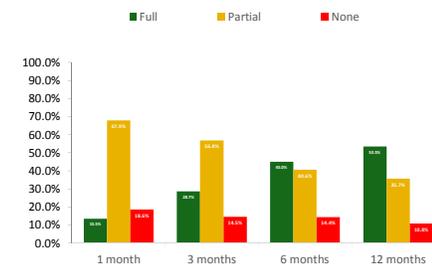
None – no improvement in AAV activity



%responding at each time point – moderate severity



%responding at each time point – severe disease



Results 3 – AAV activity at last follow up. AAV activity at last patient follow up visit varied according to the severity at the time of the incident disease or at the relapse.

Percentage of patients with this AAV activity at last clinical follow up depending on disease severity with AAV episode analysed in this study

No AAV activity – Mild 70.2% vs Severe 60.8%

Local AAV activity only – Mild 21.0% vs Severe 14.6%

Mild to moderate systemic activity – Mild 8.1% vs Severe 9.8%

Moderate to severe systemic activity – Mild 0.8% vs Severe 14.9%

CONCLUSIONS

Disease severity varies in incident and relapsing AAV patients although the majority of patients have more severe disease at the time of induction therapy. Comorbidities are common especially in the more severe patients and this must have an impact on clinical outcomes in the short and long term.

Response to induction therapy is generally better with milder AAV at the time of induction therapy start although there are exceptions.

However, overall many patients are slow to respond to current remission induction therapy or only have a partial response event at 12 months.

There is a need for more targeted therapy which can achieve remission in more patients and in a shorter time period.

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