Results: In total 249 patients, 160 (64%) and 89 (36%) females, with a median age of 66 (range 12-96) and a AAV diagnosis between 1983 to 2022, were included. 179 patients had a clinical diagnosis of GPA, 43 of MPA and 27 of EGPA. Of the 179 GPA patients, 155 (87%) met the classification criteria for GPA, 15 (8%) for MPA and 10 (6%) remained unclassified. One patient could be classified as both GPA and MPA. Of the 43 MPA patients, 33 (77%) classified as MPA, 8 (19%) as GPA and 3 (7%) patients remained unclassified. Again, one patient could be classified as GPA and MPA. Only 14 of 27 (52%) EGPA patients met the classification criteria for EGPA. Three (11%) EGPA patients classified as GPA, 4 (15%) as MPA and 6 (22%) remained unclassified. These results show a lower sensitivity than observed in the development study (87 vs 93% for GPA, 78 vs 93% for MPA and 52 vs 85% for EGPA).[1-3] When analysing our cohort based on ANCA specificity, from 67 MPO positive patients, 50 (75%) would classify as MPA, 9 (13%) as GPA and 4 (6%) as EGPA. Clinical diagnosis was MPA in only 40 (60%) of patients and GPA in 18 (27%) patients and EGPA in 9 (13%) patients. From 145 PR3 positive patients, 141 (97%) would classify as GPA, none as MPA and 1 (1%) as EGPA, compared to 140 (97%) clinical diagnosis of GPA, 1 (1%) of MPA and 4 (3%) of EGPA.

Conclusion: When comparing the EULAR/ACR classification criteria to real-life clinical diagnosis, 13% of GPA patients, 23% MPA patients and 48% of EGPA patients would not meet the criteria for the corresponding classification. Moreover, because the presence of ANCA auto-antibodies is highly weighted, the percentage of MPO positive GPA patients is diminished. We demonstrate using these new criteria will impact selection of patients in future studies, especially for EGPA studies.

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POS1175 ANTI-IL5 THERAPY IN EOSINOPHILIC GRANULOMATOSIS WITH POLYANGIITIS: DOSAGE, EFFICACY AND OUTCOME IN A LARGE COHORT OF PATIENTS IN REAL LIFE (REVAS STUDY)

Keywords: Targeted synthetic drugs, Descriptive studies, Vasculitis

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Background: Eosinophilic granulomatosis with polyangiitis (EGPA), formerly Churg-Strauss syndrome, is a rare type of anti-neutrophil cytoplasm antibody-associated vasculitis, associated with asthma, nasal poliposis and rinosinusitis, in which eosinophils play a key role. Eosinophil targeted therapies alone or associated to conventional treatment with corticosteroids and immunosuppressant drugs may be useful in patients with refractory disease or asthma/ENT manifestations difficult to treat.

Objectives: To describe the indications, dosage, efficacy and safety, of eosinophil targeted therapies in patients with EGPA in a real practice.

Methods: Retrospective study evaluating all patients with EGPA included at REVAS Registry, treated with anti-IL5 therapy, in order to assess the effectiveness and safety of this therapy. Treatment response was evaluated from 3 months to the censoring data. Complete response (CR) was defined as the absence of asthma and/or sinonasal exacerbations with a prednisone dosage of ≤5 mg/day, and partial response (PR) when the prednisone dosage was ≥5 mg/day. Statistical analysis was performed using SSPS 21 package.

Results: Fifty patients (median age 47 years) were evaluated. Forty-five (90%) patients received mepolizumab (38 patients 100 mg every 4 weeks and 7 patients 300 mg every 4 weeks) for a mean period of 31 (1-68) months; 4 (8%) received benralizumab (30 mg every 4 weeks) for a mean of 33 (7-42) months, and 3 (6%) received resilizumab (n=3, 6%) for a mean period of 54,3 (43-67) month. Anti-Il5 therapy was indicated for severe steroid-dependent asthma (94%) and/or persistent sinonasal involvement (80%). 11 (22%) patients also had symptoms of active vasculitis (5 mononeuritis multiplex, 3 miocarditis, 2 infiltrative cutaneous lesions, 1 orbital pseudotumor). ANCA were positive in 27 (54%) cases with MPO specificity. All patients were receiving corticosteroids at the time of anti-IL5 therapy beginning, with a mean dosage of 11,5 mg/day. A total of 11 (22%) patients had previously received omalizumab, that was changed to mepolizumab in 9 cases, reslizumab in 1 and benralizumab in another, due to PR (n=5) or recurrence of asthma and/or sinusitis (n=6) after a long period of treatment (70.5 months). Anti-IL5 therapy was given concomitantly to AZA in 7 cases, MTX in 3, and RTX in 2. 38 (84,4%) patients treated with mepolizumab achieved a CR after 6-18 months of treatment. The median dosage of prednisone 6 months after mepolizumab, benralizumab and reslizumab initiation was 6 (5-15) mg/day, 5.3 (2.5-10) mg/day, and 3.3 (0-5) mg/day, respectively. The median dosage of prednisone 12 months after mepolizumab, benralizumab and reslizumab beginning was 3.5 (0-5) mg/day, 3.1 (0-5) mg/day and 2.5 (0-5) mg/day, respectively. The median number of exacerbations decreased from 2.5 over the 6 months previous to therapy beginning to 1 in the following 12 months. CS were stopped in 12 (24%) patients. All 3 drugs were safe and well tolerated. During the follow-up period, three patients experienced a major relapse of the disease, and were successfully treated with RTX in conjunction with mepolizumab, with no serious adverse events. Mepolizumab dosage was reduced to 100 mg every 6 weeks in 50% of cases. In one case mepolizumab was changed by benralizumab due to PR.

Conclusion: Mepolizumab at both 100 mg every 4 weeks and 300 mg every 4 weeks is effective for the treatment of EGPA. Both doses should be compared in the setting of a controlled trial. Benralizumab and reslizumab are also effective. Sequential therapy with anti-IL5 drugs and rituximab was safe and effective in achieving remission in patients with a major relapse of the disease.

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POS1176 HOSPITALIZATION RATES, FEATURES, AND DISCHARGE DIAGNOSES OF A LARGE NATIONWIDE COHORT OF ANCA-ASSOCIATED VASCULITIS

Keywords: Epidemiology, Real-world evidence, Vasculitis

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Background: Hospitalizations due to relapse or disease complications are major concerns during follow-up of antineutrophil cytoplasmic antibody (ANCA)-associated vasculitis (AAV).

Objectives: To determine rates of hospitalization in a large cohort of patients with AAV compared with the national general population, and to describe features and associated primary discharge diagnoses.

Methods: Between 2007 and 2018, we examined the hospitalization records of AAV patients from 13 Italian hospitals. Hospitalization dates, features, length of stay, primary discharge diagnoses and patient data were abstracted from charts. Age- and sex-standardized hospitalization rates (SHR) were calculated by an indirect method, per year and for the study period, using the 2007–2018 hospitalization data provided by the Italian Ministry of Health. Multivariable and survival models were used to explore associations between these outcomes, clinical parameters at diagnosis, and pre-existing comorbidities.
Results: A total of 610 hospitalizations occurred in 635 patients with AAV (19.4% microscopic polyangiitis, MPA; 34.6% granulomatosis with polyangiitis, GPA; 46.0% eosinophilic GPA, EGPA) during a 12-year observation; in 19.8% for life-threatening conditions and leading to death in 2.3%. The median time to first hospitalization was 504 days (25-75%IQR, 95-1497), and the median hospitalization length was 8 days (25-75%IQR, 8-14). The 2018 SHR (95%CI) was 1.14 (0.91, 1.43) for all AAV combined, 1.13 (0.68, 1.76) for MPA, 1.48 (1.02, 2.08) for GPA, and 0.90 (0.60, 1.31) for EGPA. These rates tended to a gradual increase from 2007 to 2018 in the whole AAV cohort of patients and in every disease subset (Figure 1A). The main causes of hospitalization in patients with AAV were infectious diseases (18.7%), followed by major relapse and diagnostic re-evaluation (17.2% each), and cardiovascular diseases (10.8%). Among those due to infections, the main site was the respiratory system (44.6%), followed by urinary tract (9.6%) and sepsis (6.3%). Among AAV patients hospitalized during follow-up (47.1%), 55.5% had only 1 hospitalization, 18.7% had 2, and 25.6% had 3 or more hospitalizations. Patients with a diagnosis of GPA or MPA (versus EGPA), higher vasculitis activity (assessed by BVAS), ANCA positivity at diagnosis, and hospitalization at diagnosis (all $p<0.001$), more pre-existing comorbidities and older age (both $p<0.05$), were more likely to be hospitalized during follow-up (Figure 1B).
Conclusion: Patients with AAV have a significant burden of hospitalization during the disease course. Approximately half of the patients is hospitalized during follow-up, with infections, relapses and cardiovascular diseases as the main causes of hospitalizations. Our findings showed the existence of risk profiles of patients more likely to be hospitalized, requiring more active vigilance.
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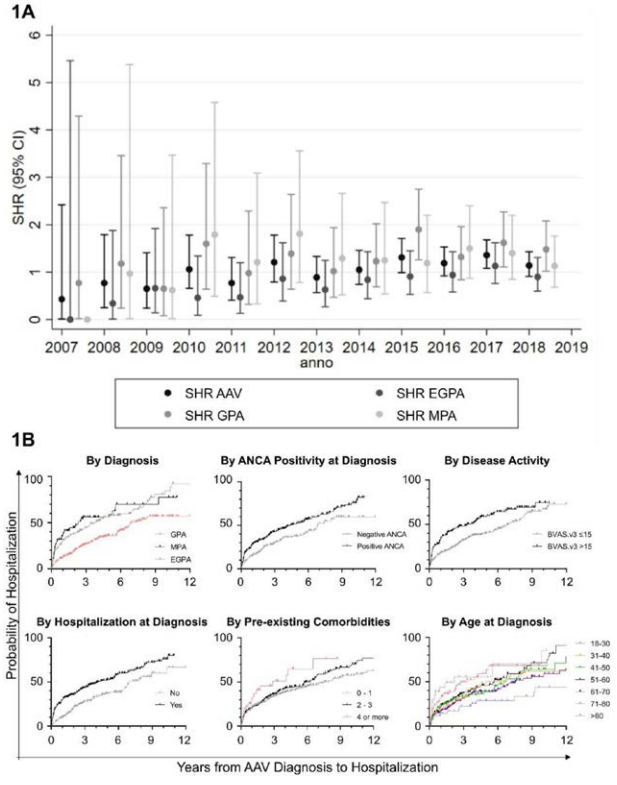

Figure 1. Age- and sex-SHR by year for patients with AAV, MPA, GPA and EGPA during 2007-2018 (A). Kaplan-Meier Plots of the probability of hospitalization after AAV diagnosis (B).

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POS1177

ROLE OF INTRATHECAL PRODUCTION OF IL-6 IN THE PATHOGENESIS OF CHRONIC PROGRESSIVE NEURO-BEHCET'S DISEASE

Keywords: Cytokines and chemokines, Behcet's disease

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Background: Behçet's disease (BD) is characterized by recurrent attacks of aphthous stomatitis, uveitis, genital ulcers, and skin lesions, including folliculitis, erythema nodosum like lesions, and superficial thrombophlebitis. Central nervous system (CNS) involvement is one of the most serious complications in BD and is called neuro-Behçet's disease (NB). There has been accumulating evidence that NB can be classified into acute type (ANB) and chronic progressive type (CPNB) based upon differences in the clinical courses as well as in responses to corticosteroid treatment. Thus, ANB responds well to corticosteroids and usually runs a self-limiting course. By contrast, CPNB is characterized by intractable neuro-behavior changes and cerebellar ataxia, which progress in spite of high doses of corticosteroids or immunosuppressive drugs, including azathioprine or cyclophosphamide.
Objectives: Previous studies have demonstrated that cerebrospinal fluid (CSF) IL-6 was elevated in patients with CPNB. However, little is known as to the mechanism of the elevation of CSF IL-6 in CPNB. The present study was designed in order to elucidate the mechanism of the elevation of CSF IL-6 in the pathogenesis in CPNB.
Methods: Paired serum and cerebrospinal fluid (CSF) samples were obtained from 19 patients with CPNB when they presented active neuropsychiatric manifestations and from 19 control patients with non-inflammatory neurological diseases. Among the 19 patients with CPNB, 5 patients received treatment with infliximab and followed up thereafter. The levels of albumin and IL-6 in CSF and sera were measured by ELISA. Blood-brain barrier (BBB) function was evaluated by Q albumin (CSF/serum albumin quotient x 1,000). The intrathecal production of IL-6 was evaluated by CSF IL-6 indices ([CSF IL-6 x serum albumin]/[serum IL-6 x CSF albumin]).
Results: Serum IL-6 and CSF IL-6 were significantly higher in 19 patients with CPNB compared with control patients with non-inflammatory neurological diseases. Among 19 CPNB patients, serum IL-6 levels were not significantly correlated with CSF IL-6 levels (r=0.0938). As for 5 patients with CPNB treated with infliximab, all of CSF IL-6, serum IL-6, Q albumin and CSF IL-6 indices were significantly elevated compared with control patients with non-inflammatory neurological diseases. Treatment of the 5 patients with infliximab dramatically decreased CSF IL-6 in the next day, but neither serum IL-6 nor Q albumin (Figure 1). Of note, CSF IL-6 indices were dramatically decreased on the next day of treatment with infliximab in the 5 patients with CPNB (Figure 1).