Conclusions: Pneumococcal vaccines, unlike other vaccines, frequently trigger severe local and systemic inflammation in CAPS patients. Clinicians must balance potential benefits of pneumococcal immunisation against safety concerns.

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FRI0586 INTERLEUKIN (IL)-1 INHIBITION WITH ANAKINRA AND CANAKINUMAB IN BEHÇET'S DISEASE RELATED UVEITIS: A MULTICENTER RETROSPECTIVE OBSERVATIONAL STUDY

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Objectives: To evaluate the role of interleukin (IL)-1 inhibitors anakinra (ANA) and canakinumab (CAN) in the treatment of Behçet disease (BD)-related uveitis

Methods: multicenter retrospective observational study including 19 consecutive BD patients (31 affected eyes) receiving treatment with anti-IL-1 agents. Data were analyzed at baseline, at 3 and 12 months. Primary end-point: reduction of ocular inflammatory flares (OIF). Secondary end-points: improvement of Best Corrected Visual Acuity (BCVA); reduction of macular thickness defined by optical coherence tomography (OCT) and of vasculitis identified with fluorescein angiography (FA); evaluation of statistically significant differences between patients treated with IL-1 inhibitors as monotherapy, subjects also administered with disease modifying anti-rheumatic drugs (DMARDs) and/or corticosteroids as well as between patients administered with IL-1 inhibitors as first line biologic treatment and those previously treated with TNF-α inhibitors

Results: at 12 months OIF significantly decreased from 200/100 patients/year to 48.87/100 patients/year ($p<0.0001$). The frequency of retinal vasculitis identified by FA significantly decreased between baseline, 3-month and 12-month follow-up visits ($p<0.0001$ and $p=0.001$, respectively). OIF rate was significantly higher in patients co-administered with DMARDs (81.8/100 patients/year) than in patients undergoing IL-1 inhibitors as monotherapy (0.0/100 patients/year) ($p=0.03$). No differences were identified on the basis of corticosteroid use and between patients administered with IL-1 inhibitors as first-line biologic approach or second-line. Steroid dosage was significantly decreased at 12-month visit compared to baseline ($p=0.02$).

Conclusions: treatment with IL-1 inhibitors is effective in the management of BD-related uveitis and provides a long-term control of ocular inflammation in refractory and long-lasting cases.

Disclosure of Interest: None declared

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FRI0587 DIFFERENT FACTORS ARE RELATED TO RECURRENCE OF EXISTING ORGAN INVOLVEMENT AND NEW DEVELOPMENT OF ORGAN INVOLVEMENT IN IGG4-RELATED DISEASE

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Background: IgG4-related disease (IgG4-RD) is a recently recognized systemic inflammatory disorder that can affect many organs [1]. In IgG4-RD, relapse including recurrence of existing organ involvement (REOI) and new development of organ involvement (NDOI) easily occurs during the clinical course, and its predictors have been suggested [2, 3]. However, differences between risk factors of REOI and those of NDOI have not been clarified.

Objectives: This study aimed to clarify the respective risk factors of REOI and NDOI in IgG4-RD.

Methods: We retrospectively investigated factors related to REOI and NDOI in 86 IgG4-RD patients whose follow-up period was more than 12 months. For assessment of factors related to REOI and NDOI, we performed uni- and multivariate Cox regression analysis. On stepwise multivariate analysis, we applied the variables with $P<0.1$ in univariate analysis and the predictors of relapse suggested in past reports (age, sex, serum IgG4, IgG, and IgE levels, eosinophil counts, and RF positivity) [2, 3], and used the forward selection method (including factors presenting with $P<0.05$).

Results: The patients comprised 57 men and 29 women (mean age 65.9 years). Mean follow-up period was 63.1 months (range 14–150). At diagnosis, their mean serum IgG4 level was 718 mg/dL (range 10.7–3,610). Seventy-one patients were treated with glucocorticoid (GC). REOI was detected at 52.3 months (range 1.0–120) after the diagnosis in 20 patients, including 4 not receiving GC at that time. On the other hand, NDOI was detected at 37.6 months (range 5.0–120) after the diagnosis in 15 patients, including 8 not receiving GC then. In multivariate Cox regression analysis, blood eosinophil counts [per 100/μL, hazard ratio (HR) 1.072, 95% confidence interval (CI) 1.018–1.129, $P=0.008$] and continuation of GC (vs discontinuation or observation without GC, HR 0.245, 95% CI 0.076–0.793, $P=0.019$) had a significant impact on the time to NDOI, whereas age (per year, HR 0.942, 95% CI 0.899–0.986, $P=0.011$) and ANA positivity (vs negativity, HR 6.632, 95% CI 1.892–23.255, $P=0.003$) had a significant impact on the time to REOI.

Conclusions: The present study suggests that the risk factors of REOI and NDOI in IgG4-RD are different.

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FRI0588 INTERIM RESULTS OF A PHASE 2 STUDY OF XMAB®5871, A REVERSIBLE B CELL INHIBITOR, IN IGG4-RELATED DISEASE

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Background: IgG4-related disease (IgG4-RD) is an immune-mediated condition causing fibro-inflammatory lesions that can lead to irreversible organ damage. No approved therapies for IgG4-RD exist. We report the use of a novel monoclonal antibody, XmAb5871, in IgG4-RD. XmAb5871 is a humanized anti-CD19 antibody with an Fc portion engineered for increased affinity (up to 400-fold over native IgG_1) to FcgRIIb, the only Fc receptor on B cells. Co-ligation of CD19 and FcgRIIb leads to inhibition of B lineage cells bearing these targets. Reversible inhibition of B cell function without B cell ablation is one potential advantage of this approach.

Methods: The trial is an open-label investigation of XmAb5871 in active IgG4-RD, defined by an IgG4-RD Responder Index (RI) of ≥3. XmAb5871 (5 mg/kg) is administered IV every 14 days for 12 doses. The primary outcome measure is the proportion of patients on day 169 (2 weeks following the last dose) with a decrease in the IgG4-RD RI of 2 or more points compared to baseline. Glucocorticoids are permitted but not required at entry and must be discontinued by two months. Other immunosuppressive medications are not allowed. Imaging and mechanistic studies are performed at baseline and at selected intervals.

Results: Fifteen patients were enrolled between March 2016 and January 2017. As of October 31, 2016, 12 patients had received at least one infusion of XmAb5871. The median age of the 12 patients is 58 years (range: 43 to 78 years). Two-thirds of the patients are male. Nine of the 12 patients had elevated serum IgG4 concentrations at baseline with a mean serum IgG4 of 499 mg/dL (range: 25–2415; normal <86 mg/dL). The median baseline IgG4-RD RI score was 10 (range: 2–30), with active inflammatory disease in at least one organ system (median 4, range: 1–10). The organs most commonly affected were lymph nodes (75% of patients), submandibular glands (67%), parotid glands (58%), and lacrimal glands (50%). Four patients (33%) had kidney involvement and 3 (25%) had heart/pericardium findings. Nine of 11 patients (82%) have had an initial response to XmAb5871 therapy of at least a three-point reduction in the IgG4-RD RI within two weeks of the first dose. As of Oct 31st, 2016, five patients attained disease remission (an IgG4-RD RI of 0 and no prednisone treatment after 2 months) during the study. Efficacy outcomes will be updated as more patients complete the study. One patient had been on glucocorticoid treatment for 2 years and was on prednisone of 15 mg/day at baseline, but was able to discontinue prednisone by 2 months after starting treatment. Three patients experienced minor, transient gastrointestinal side-effects during the 1st infusion. One patient had infusion-related GI symptoms on the 5thinfusion and subsequently developed rash and arthritis. She was found to have anti-drug antibodies and has discontinued the study. Mechanistic studies show that both peripheral B cells and plasmablasts decrease substantially following therapy in the majority of patients. Studies of the mechanism of this decrease and functional B cell assays are under way.

Conclusions: XmAb5871 is tolerated well in patients with active IgG4-RD and is a promising treatment approach for IgG4-RD.