Results: Nine VBD patients (8 male and 1 female) were enrolled, with a mean age and median course of 37±8.6 years and 72 months (range 12 to 300), respectively. Cardiac involvements (severe aortic regurgitation secondary to BS) were presented in all patients, including 2 patients with post-operative pseudoaneurysm (PVL) after aortic valve replacement surgery. Multiple vascular lesions were documented in the other 2 patients, including one patient with life-threatening multiple pulmonary aneurysms, pulmonary thromboembolism and recurrent deep vein thrombosis, and another patient with abdominal aortic pseudoaneurysm and multiple artery stenosis and occlusion. Prior to GOL therapy, all patients experienced disease progression despite high-dose glucocorticoids combined with multiple immunosuppressants. Moreover, seven patients required effective and fast control of inflammation and a decrease of glucocorticoid dose during the perioperative period. They were treated with GOL, 50mg every 4 weeks, in combination with background low- or medium-dose glucocorticoids and immunosuppressants, for a median of 6 (range 3-15) months. After a mean duration of follow-up of 10 (range 2-6) months, all patients achieved improvement both in clinical symptoms and serum inflammation markers. The ESR level [4.88±4.94 mm/h vs 31.13±31.78 mm/h, P<0.01] and CRP level [1.9 (0.11-3.73) mg/L vs 24.3 (0.4-85.57) mg/L, P<0.01] significantly decreased. The dosage of glucocorticoid [10 (0-15) vs 40 (0-100)mg/d, P<0.01] effectively tapered, indicating a potential steroid-sparing effect. No newly-onset atheromatous and recurrent venous thrombosis were observed. Also, one patient had a marked reduction in size and number of pulmonary aneurysms. No post-operative PVL was observed in the five patients after Bentall operation with a median follow-up of 10 months. One patient with severe aortic regurgitation remained stable and without surgical intervention with the treatment of GOL for 16 months. No severe complication occurred in one patient after underwent endovascular repair of abdominal aorta for 8 months. GOL was well-tolerated, and no serious adverse event was observed.

Conclusion: Our results suggested that GOL is safe and effective for the treatment of patients with severe and/or refractory VBD. Further controlled studies are warranted to confirm the therapeutic potential of GOL in VBD patients.

Disclose of Interests: None declared

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AB0533

ANTI-NEUTROPHIL CYTOPLASMIC ANTIBODY (ANCA) IN GENERAL POPULATION WITHOUT ANCA ASSOCIATED VASCULITIS

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Background: Currently it is hypothesized that many systemic autoimmune diseases occur due to environmental risk factors in addition to genetic risk factors. Anti-Neutrophil Cytoplasmic Antibody (ANCA) is mainly associated with three systemic autoimmune disease including granulomatosis with polyangiitis (GPA), microscopic polyangiitis (MPA), eosinophilic granulomatosis with polyangiitis (EGPA). It is known that ANCA can be positive before clinical symptoms in patients with known diagnosis of GPA and ANCA titers rise before clinical manifestations appear. However, prevalence of ANCA among general population is not well known. It has not been described as well how many people with positive ANCA eventually develop clinical manifestations of ANCA associated Vasculitis.

Objectives: This study aims to estimate prevalence of ANCA in general population without ANCA associated Vasculitis. It also describes natural disease course of people with positive ANCA without ANCA associated Vasculitis. Risk factors for positive ANCA are also analyzed.

Methods: This is a single center retrospective study at Center for Preventive Medicine of St. Luke’s International Hospital in Tokyo. ANCA was checked among the patients who wished to between 2018 and 2019. St. Luke’s Health Check-up Database (SLHCD) was utilized to collect the data. The patients whose serum was measured for ANCA were identified. The data for basic demographics, social habits, dietary habits and laboratory data were extracted. The charts of the patients with positive ANCA were reviewed.

Results: Sera of total 1204 people were checked for ANCA. Of these 1204 people, 587 (48.8%) are male and the mean age was 55.8 years (32.6 to 79). There were total 11 patients with positive ANCA. Myeloperoxidase ANCA (MPO-ANCA) was positive for 3 patients and proteinase 3 ANCA (PR3-ANCA) was positive for 8 patients. Of these 11 patients, 5 were male (45.5%) and the mean age was 54.6 years. Two patients had history of autoimmune disease (primary biliary cirrhosis and ulcerative colitis). Five patients were evaluated by rheumatologists with the median follow-up period of 274 days. None of them developed clinical signs and symptoms of ANCA associated Vasculitis. Four out of five patients had ANCA checked later, two of which turned negative. The prevalence of ANCA in this cohort was 0.9% (95% confidence interval [95% CI]: 0.5% to 1.6%). Univariate analysis was performed to identify risk factors of positive ANCA. The variables analyzed include age, gender, body mass index (BMI), smoking habits, alcohol intake, dietary habits (fruits, fish, red meat), hypertension, dyslipidemia, and laboratory data. None of these variables demonstrated statistically significant differences except for positive rheumatoid factor (ANCA positive group: 33 % vs ANCA negative group: 9.1%, p value = 0.044).

Conclusion: The prevalence of ANCA in this cohort was 0.9% (95% CI: 0.5% to 1.6%). None of them who had a follow-up developed ANCA associated Vasculitis during the follow-up period. Longer follow-up and more patients are necessary to determine natural course of people with positive ANCA.

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AB0534

EFFICACY OF TOCILIZUAB IN LARGE-VESSSEL GIANT CELL ARTERITIS: A SINGLE-CENTER REAL-LIFE EXPERIENCE

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Background: In a significant proportion of giant cell arteritis (GCA) patients, large vessels (LV) are affected.1 GIACITA trial showed tocilizumab (TCZ) to be effective for the treatment of GCA2 but did not differentiate between patients with and without LV involvement and did not evaluate LV-imaging response.

Objectives: To assess efficacy of TCZ in LV-GCA, evaluating both clinical symptoms and vascular inflammation on PET scan.

Results: Nine VBD patients (8 male and 1 female) were enrolled, with a mean age and median course of 37±8.6 years and 72 months (range 12 to 300), respectively. Cardiac involvements (severe aortic regurgitation secondary to BS) were presented in all patients, including 2 patients with post-operative pseudoaneurysm (PVL) after aortic valve replacement surgery. Multiple vascular lesions were documented in the other 2 patients, including one patient with life-threatening multiple pulmonary aneurysms, pulmonary thromboembolism and recurrent deep vein thrombosis, and another patient with abdominal aortic pseudoaneurysm and multiple artery stenosis and occlusion. Prior to GOL therapy, all patients experienced disease progression despite high-dose glucocorticoids combined with multiple immunosuppressants. Moreover, seven patients required effective and fast control of inflammation and a decrease of glucocorticoid dose during the perioperative period. They were treated with GOL, 50mg every 4 weeks, in combination with background low- or medium-dose glucocorticoids and immunosuppressants, for a median of 6 (range 3-15) months. After a mean duration of follow-up of 10 (range 2-6) months, all patients achieved improvement both in clinical symptoms and serum inflammation markers. The ESR level [4.88±4.94 mm/h vs 31.13±31.78 mm/h, P<0.01] and CRP level [1.9 (0.11-3.73) mg/L vs 24.3 (0.4-85.57) mg/L, P<0.01] significantly decreased. The dosage of glucocorticoid [10 (0-15) vs 40 (0-100)mg/d, P<0.01] effectively tapered, indicating a potential steroid-sparing effect. No newly-onset atheromatous and recurrent venous thrombosis were observed. Also, one patient had a marked reduction in size and number of pulmonary aneurysms. No post-operative PVL was observed in the five patients after Bentall operation with a median follow-up of 10 months. One patient with severe aortic regurgitation remained stable and without surgical intervention with the treatment of GOL for 16 months. No severe complication occurred in one patient after underwent endovascular repair of abdominal aorta for 8 months. GOL was well-tolerated, and no serious adverse event was observed.

Conclusion: Our results suggested that GOL is safe and effective for the treatment of patients with severe and/or refractory VBD. Further controlled studies are warranted to confirm the therapeutic potential of GOL in VBD patients.

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