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SAT0256

THE ROLE OF FAST-TRACK ULTRASOUND IN PREVENTING EARLY COMPLICATIONS AND RELAPSES IN GIANT CELL ARTERITIS

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Background: Giant Cell Arteritis (GCA) is the most common form of primary systemic vasculitis, mainly affecting adults over 50 years old. Permanent visual loss (PVL) is one of the most feared complications, occurring in about 20% of cases, typically prior to initiation of high-dose glucocorticoid (GC) therapy. Color-duplex sonography (CDS) of temporal arteries (TAs) and large vessels (LVs) is recognized as a first-line diagnostic tool for patients with suspected GCA. A fast track approach (FTA), incorporating CDS has been associated to a significant reduction of PVL in two retrospective studies^{1,2}.

Objectives: To assess the impact of FTA on PVL and risk of relapses during follow-up compared to conventional care prior to the introduction of the FTA in our rheumatology clinic.

Methods: Patients with new-onset GCA evaluated in our department from January 1998 to September 2019 were included in the study. The FTA approach for GCA was implemented since October 2016. The diagnosis of GCA was based on positive TAs and/or LVs CDS and/or a positive TA biopsy and clinical signs and symptoms of GCA. All patients were clinically examined by the same rheumatologist who performed the CDS. PVL was defined as total visual impairment in one or both eyes. Data on baseline clinical features and later outcomes were collected.

Results: 153 patients were included: 115 females (75.2%), mean age at diagnosis 71.6±8.2 years. Of these, 112 patients (73%) were evaluated conventionally and 41 (27%) with FTA. Patients in the FTA group were older ($P=0.0002$), presented more frequently with polymyalgia rheumatica symptoms, weight loss, jaw or tongue claudication and scalp tenderness ($P<0.05$ for all comparisons). The median duration of follow-up in the FTA group was shorter compared with the conventional group (1.5 vs 5.8 years). PVL occurred in 22 (19.6%) patients in the conventional group compared to 5 patient (12.2%) in the FTA, leading to a reduction of 37.9% in the relative

risk of PVL with the FTA approach. Cumulative incidence of relapses and time to first relapse did not change after FTA introduction ($P>0.05$) (Fig. 1).

Conclusion: The application of a FTA in GCA resulted in a significant reduction of PVL. However, the relapse rate did not seem to be influenced by the FTA, highlighting the need to implement further management strategies, besides earlier diagnosis and prompt initiation of GC, that would impact the course of the disease during long-term follow-up

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SAT0257

IMAGING MANIFESTATIONS OF PULMONARY INVOLVEMENT IN TAKAYASU ARTERITIS

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Background: Takayasu arteritis (TA) is a form of chronic large vessel vasculitis. Recently, we found that some patients had lung manifestations and abnormal computed tomography (CT) results that cannot be explained by other causes. And so far, the prevalence of pulmonary features of TA is uncertain.

Objectives: To investigate the imaging findings of lung involvement in patients with TA by high-resolution CT (HRCT) at a single center of China, and analyze the associations with mortality.

Methods: A retrospective study was carried out of TA patients ($n = 237$, 200 women) who had routine HRCT scanning performed at the time of diagnosis from 2008 to 2018 at Xijing Hospital, Xi'an (China). Radiological manifestations of pulmonary involvement were evaluated from the HRCT images by two experienced radiologists. Patients with a confirmed diagnosis of pulmonary disorder (i.e., infections, tumors, except tuberculosis) have been excluded.

Results: The median age of patients was 33 years (range 18-74), and the duration of disease was 66±55 months. Of all the patients, 57.8% (137/237) had abnormal lung HRCT results. Among them, 29.2% (40/137) of patients had pulmonary arterial involvement, including artery stenosis or occlusion. Mild pulmonary interstitial hyperplasia was the most common abnormal HRCT findings (27.4%, 65/237) observed in TA patients. Moreover, the frequencies of stripe/patchy shadows and nodule were 22.7% (53/237) and 15.6% (37/237), respectively. Pleural effusion was rare in these patients (10/237). Additionally, there are 9 cases of active pulmonary tuberculosis, 14 cases of suspected tuberculosis, and 9 cases of obsolete pulmonary tuberculosis. The common symptoms associated with lung were dyspnea (42%), cough (14%), chest pain (9.1%), and hemoptysis (4.9%). In a Cox regression model, there was no significant correlation between pulmonary involvement and mortality ($P = 0.001$).

Conclusion: Pulmonary abnormalities on HRCT scanning is common among patients with TA. Apart from tuberculosis-related lesions and pulmonary arterial involvement, these manifestations are probably part of non-specific systemic inflammation of TA.

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SAT0258

DRUG RETENTION RATE AND PROGNOSIS AFTER DISCONTINUATION OF INFLIXIMAB IN PATIENTS WITH BEHÇET SYNDROME

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Background: Infliximab (IFX) has become an important treatment option for all manifestations of Behçet syndrome (BS). Adverse events, loss of efficacy, lack of patient compliance and cost may limit its sustained use in patients with BS.

Fig. 1. Time to first relapse in patients with GCA and evaluated with a FTA compared to conventionally approached patients.

Objectives: We aimed to evaluate the drug retention rates, causes of discontinuation and outcome after cessation of IFX.

Methods: We reviewed the charts of 850 patients with BS who were registered in our clinic between 2009 and 2013 and identified those who had used IFX. The charts of these patients were surveyed for demographic features, the reasons for IFX use, previous and concomitant drugs, IFX duration, reasons for discontinuation and time to flare after discontinuation of IFX. We defined flare as disease activity in the organ involvement that necessitated IFX use. New major organ involvement that developed during or after discontinuation of IFX were also noted.

Results: A total of 50/850 patients were treated with IFX (40 men, mean age 40±9.5 years), for uveitis (n=29), vascular involvement (n=11), parenchymal neurologic involvement (n=8), arthritis (n=1) and venous ulcer (n=1). Of these 50 patients, 22 (43%) are still receiving IFX for a median duration of 40 (IQR: 25-83) months. The remaining 28 (47%) patients had discontinued IFX after a median follow-up of 12 (IQR: 7-30) months. Reasons for discontinuation were remission in 7 patients, adverse events in 10, primary lack of efficacy in 2, and lack of patient compliance in 9 patients. Among the 7 patients who discontinued IFX due to remission, only 1 patient with uveitis had a flare, 11 months after discontinuation, while on azathioprine. The remaining 6 did not experience any flares during a median follow-up of 29.5 (IQR: 4-24) months. Five of these patients used azathioprine and 1 used mycophenolate mofetil for maintenance. Among the 10 patients who discontinued due to adverse events, IFX was switched to adalimumab in 3 patients and none experienced flares under adalimumab. The remaining 7 patients continued to receive azathioprine or mycophenolate mofetil without a biologic. Among these, 1 patient with uveitis 1 with arthritis experienced flares 6 months after discontinuing IFX. Among the 9 patients who discontinued IFX due to lack of patient compliance, 3 patients (2 with uveitis and 1 with arthritis) had flares after 5 months, 1 year and 1.5 years. IFX was re-initiated in all. The remaining 6 patients did not experience any flares after a mean follow up of 5±1.5 years. Two with uveitis and 2 with venous thrombosis used azathioprine for maintenance, while 2 patients did not receive further treatment. New major organ involvement was not observed. New BS manifestations developed in 2 patients under IFX, arthritis in one patient and both epididymitis and erythema nodosum in the other.

Conclusion: Almost half of our patients with BS remained on IFX during a median follow-up of 5.4 years (IQR:2.4-7). Main reasons for discontinuation were adverse events, remission and lack of patient compliance. Our observations further support the efficiency of IFX in managing patients with BS.

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SAT0259

ANCA-ASSOCIATED VASCULITIS WITH RENAL INVOLVEMENT: THE ROLE OF A COMBINED HISTOPATHOLOGICAL ASSESSMENT AS PREDICTOR OF PATIENTS' PROGNOSIS

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Background: Anti-neutrophil cytoplasmic antibody (ANCA)-associated vasculitis often affect the kidney and renal involvement has a considerable clinical impact on patient's prognosis. Currently used histopathological classifications are basically focused on the glomerular damage and assessing chronic damage progression, but their prognostic role presented some limitations.

Objectives: To combine the Berden Classification, the ANCA Renal Risk Score (ARRS) and the Mayo Clinic-Renal Chronicity Score (RCS) with the inflammatory interstitial infiltrate and to evaluate the prognostic value of the combined assessment in patients with AAV

Methods: We included 19 AAV patients with renal involvement (mean age 63±13.2 years; disease duration 4.9±5.2 months) who underwent renal biopsy. Patients were classified according to age, sex, disease duration, ANCA

positivity. The histopathological evaluation was performed assessing the Berden category, Risk group (low, medium, high) according to the ARRS and Chronicity class according to the RCS; we also assessed the % of inflammatory interstitial infiltrate. Each patient was followed-up for 12 months; we considered the stage IV (eGFR < 30 ml/min/m²) of the KDIGO CKD Classification as renal outcome.

Results: 8 (42.1%) AAV patients were p-ANCA and 11 (57.9%) c-ANCA. 12 months after renal biopsy, 8 patients (42.1%) had a GFR <30 ml/min. According to the ARRS, 10 (52.6%) patients were in low, 7 (36.8%) in medium and 2 (10.5%) in high risk group. According to the RCS, 2 (10.5%) biopsies had minimal, 10 (52.6%) mild and 7 (36.8%) moderate chronic changes, no one presented severe chronic changes. According to the Berden classification, 6 (31.6%) samples represented the focal, 2 (10.5%) the crescentic and 11 (57.9%) the mixed category, no one represented the sclerotic class. The mean % of inflammatory infiltrate was 37.4±25.2. The interstitial inflammatory infiltrate showed a direct correlation with the severity of the Berden category (R=0.51; p=0.025), the % of sclerotic glomeruli (R=0.6; p=0.007) and the number of fibrocellular crescents (0.46; p=0.05) and an inverse correlation with the GFR at 12 months (R=-0.48; p=0.045). A ROC curve study identified a 22.5% cut-off of inflammatory infiltrate to predict the outcome of GFR at 12 months < 30 ml/min (sensitivity 88%, specificity 97.5%). Patients in focal class developed less frequently a GFR<30 (χ²=9.1; p=0.003), but there were no differences in the outcomes between the crescentic and mixed class. ARRS could differentiate risk group with regard to the renal outcome stage IV (χ²=9.0 e p=0.01) as well as the chronicity Score (χ²=8.1; p=0.017). Finally, we built a matrix combining the different histopathological scores and the % of inflammatory infiltrate to predict the outcome; we found that an inflammatory infiltrate wider than 22.5% characterizes most of patients developing stage IV chronic renal failure at the 12th month. In fact, more than 75% of patients with eGFR < 30 ml/min had inflammatory infiltrate wider than 22.5% at biopsy, despite they were in the low risk class (ARRS) and in minimal changes class (RCS).

Conclusion: Our results underline the importance of the inflammatory infiltrate in renal outcome and histology. Despite the limited number of patients, our data suggest that a combined histological score assessing the chronicity and activity of renal disease from both glomerular and interstitial perspective could better predict patients' global and renal prognosis.

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SAT0260

PENTOXIFYLLINE GEL FOR ORAL ULCERS IN PATIENTS WITH BEHÇET'S SYNDROME

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Background: Oral ulcers, the hallmark lesion of Behçet's syndrome (BS) can be disabling and impair eating, drinking and speaking. Despite recent advances in systemic medications for the treatment of oral ulcers, some patients do not achieve complete remission. Topical agents may help such patients by decreasing the pain and duration of oral ulcers. Pentoxifylline (PTX) is a methylxanthine derivative that inhibits phosphodiesterase and is thought to have immunomodulatory effects in addition to improving blood flow which is its main reason for use in peripheral vascular disorders.

Objectives: The aim of this study is to assess the efficacy and safety of PTX gel for oral ulcers in patients with BS. We also aimed to explore the best tools for the assessment of treatment response to topical agents in randomized controlled trials (Clinicaltrial.gov ID: NCT 03888846).