AB0601

UTILIZATION OF A MULTISPECIALTY TEAM FOR THE DIAGNOSIS OF GIANT CELL ARTERITIS REDUCES PATIENT MORBIDITY

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Background: Giant Cell Arteritis (GCA) is an autoimmune vasculitis, most commonly seen in older adults with a peak incidence in the seventh decade of life. A diagnosis of GCA is often considered in any patient over the age of 50 years who complains of or is found to have new onset headache, acute visual disturbances, jaw claudication, unexplained fever, or elevated inflammatory markers. Because the manifestations of GCA can vary considerably from patient to patient, often with transient and fluctuating symptoms, an accurate diagnosis can be challenging. Even in the setting of a negative temporal artery biopsy, many patients are treated empirically based on the perceived probability of disease. This approach can lead to significant morbidity from prolonged medication exposure and unnecessary procedures.

Objectives: The aim for this project was to look at the impact of a collaborative effort amongst three specialties, rheumatology, neurology and ophthalmology, which composed a consultation based "GCA team", the goal of which was to improve how GCA is diagnosed and subsequently managed.

Methods: We conducted a retrospective study of all patients suspected to have GCA at our institution over the last 2.5 years that had either been seen by the GCA team or not. The GCA team met either in person or had a conference call to discuss each case and make a joint decision regarding the diagnosis and treatment. Data extracted included patient demographics, symptoms on presentation, labs, biopsy results and cumulative prednisone dose.

Results: A total of 30 patients (19 female, 11 male) were evaluated; 19 were seen by the GCA team and 11 were not. The mean ages of the patients in each group were the similar (GCA Team 70.6 (SD 12.5) vs no GCA Team 70.3 (SD 12.3)). The mean ESR between the two groups was also similar (GCA Team 53.3 (SD 30.2) vs no GCA Team 53.8 (SD 27.2)). The presenting clinical symptoms between the two groups were also comparable: visual complaints (63% vs 73%), headache/jaw claudication/temporal artery tenderness (42% vs 45%), and cranial neuropathy (11% vs 9%).

All of the patients not seen by the GCA team underwent bilateral temporal artery biopsy; however none were positive on histology. Regardless, all were continued on high dose prednisone with a 6 month cumulative mean dose of 5,350mg.

Of the 19 patients seen by the GCA team, 8 were determined to be low probability for GCA and thus were spared temporal artery biopsy. Furthermore, all of the patients were recommended a rapid steroid taper and the cumulative mean dose of prednisone was only 490mg. Over 6 months of follow-up, none of the 8 patients deemed low probability had a subsequent diagnosis of GCA given.

Compared to patients deemed high probability by the GCA team, low probability patients were younger (68.6 vs 71.2), more often female (75% vs 45%), had lower ESR (40.5 mm/hr vs 66.1 mm/hr), and presented with more visual complaints (86% vs 46%).

In the 11 high probability GCA patients, 10 underwent temporal artery biopsy (one refused) with 4 biopsies read as positive for GCA. Over 6 months of follow up, none of these patients had flares after they were started on treatment.

Conclusion: While the accuracy of a GCA diagnosis cannot be determined in our cohort of patients not seen by the GCA team, it is likely that evaluation by a multispecialty team would have found several to be low probability for GCA, especially as none of the patients had a positive temporal artery biopsy. We have demonstrated that by adopting a collaborative approach to diagnosing GCA, unnecessary biopsies can be avoided as well as limiting unnecessary prednisone exposure. More prospective data is needed to provide an accurate assessment of this team approach for GCA which can serve as a model for other healthcare facilities.

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AB0602

CLINICAL USEFULNESS OF LUNG ULTRASOUND IN ACTIVE GRANULOMATOSIS WITH POLYANGIITIS WITH LUNG INVOLVEMENT – PRELIMINARY DATA

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Background: Lung involvement is observed in 43% to 94% of patients with granulomatosis with polyangiitis (GPA) (1). In about 10% of cases, the lung is the only organ affected and in as many as 30% of patients without clinical symptoms of lower respiratory tract involvement, abnormalities in chest imaging examinations can be found (2). The efficacy of lung ultrasound (LUS) is very well documented in many pulmonary diseases (3,4). Single publications indicate its applicability also in diagnostics of complications secondary to systemic connective tissue disease, e.g., lung fibrosis or diffuse alveolar hemorrhage (5,6). The necessity of repeating chest imaging examinations increases the patient's exposure to ionizing radiation. Thus, the possibility of limiting such exposure through the application of LUS as the diagnostic modality appears extremely inviting.

Objectives: The aim of this study was to assess lesions detected by ultrasound in patients with active granulomatosis with polyangiitis (GPA) in comparison to abnormalities found by computed tomography (CT).

Methods: We analyzed the clinical and radiological data of 12 patients (5 women/7 men, mean age 47.9 years/range 18-80) with active PR3-ANCA-associated vasculitis with lung involvement (Birmingham Vasculitis Activity Score, BVASv3 mean 5.7/range 1-12). LUS was performed in the sitting and lying positions, using the convex (2-6 MHz) and linear (4-12 MHz) transducers placed to each intercostal space over the chest wall (anterior, lateral and inferior). Chest CT was performed according to a standard protocol with the use of a 64-slice CT scanner made by GE. The images obtained in LUS were compared to changes detected in CT scans. The study protocol was approved by an independent local Bioethics Committee (NKBBN/474/2018).

Results: In all patients with lungs infiltrations, changes were visible in the LUS, but the visualized infiltrates and caves include only these lesions that were adjacent to the line of pleura. LUS revealed infiltrates as well as infiltrates with features of disintegration and cavities. Subpleural infiltrates in ultrasound were visualized as hypoechoic round or oval consolidations, without central flow visible in color Doppler (CD) and power Doppler (PD) modes. Caves visualized in LUS were round and anechoic; flow in CD and PD modalities was also absent. In some cases, we observed hypoechoic round or oval infiltrates with features of disintegration, partly filled in with fluid content (anechoic).

Conclusion: Due to the harmlessness of ultrasonography, LUS can be repeatedly performed. In addition, ultrasound examination can be performed during hospitalization at the patient's bedside as well as during a visit to the rheumatologist's office.

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AB0603

SCOTLAND'S FIRST FAST TRACK TEMPORAL ARTERY ULTRASOUND REFERRAL PATHWAY FOR SUSPECTED GIANT CELL ARTERITIS

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Background: Giant cell arteritis (GCA) is associated with loss of vision (LOV). Rapid referral for specialist assessment including temporal artery ultrasound (TAU) reduces the risk of LOV and the need for temporal artery biopsy (TAB). Two

Consultant Rheumatologists (JSM & JHG), formally trained in TAU, established Scotland's First Fast Track Referral Pathway for Suspected GCA using TAU on 21.03.17. A third Consultant (SJH), whose formal Vascular ultrasound training occurred later, joined the Service on 10.04.18. We present here our Outcome data and also our experience of this new Service for NHS Fife, the first of its kind in Scotland.

Methods: We prospectively recorded data on all referrals to our Fast Track Service for patients with suspected GCA from 21.03.17 onwards. NHS Fife covers a population of 370,000 and constitutes 6.8% of the Scottish Population (5,425,000).

Results: Up until 20.11.17 (20 months) we received a total of 142 referrals, representing an average of 7 per month, or around 2 per week. 54 (38%) were deemed to have a very low probability of GCA based on their age, history & CRP and were not seen or scanned. 88 (62%) of referrals underwent Fast Track assessment including TAU (62 F; 26 M); Mean age 71 (range 52-88). Time from referral to assessment was as follows: (25) 28% were seen on the same day; (60) 68% were seen by the next day; (69) 78% were seen within 2 days of referral; (84) 95% were seen within 3 days of referral. 25/88 (28%) patients were diagnosed with GCA. Of these, 14 patients had a positive TAU and did not require TAB. 9 patients had an equivocal or negative TAU and were diagnosed on TAB. Only 1/25 GCA patients experienced LOV (4%). The patient was an 82 year old male diabetic who presented to Ophthalmology with unilateral LOV but no symptoms of GCA and also with a normal CRP (4.1mg/L). However, he had stopped 1mg of prednisolone for PMR 2 weeks prior to developing LOV. TAU was positive, but in view of the atypical nature of his symptoms ("silent GCA") & normal CRP, he also underwent TAB, which was positive confirming the diagnosis of GCA. 1 patient had a negative TAU and TAB, but was subsequently diagnosed with LVV on Axillary artery US.

Conclusion: A previous survey of 20 GCA patients diagnosed in Fife over a 2 year period (Jan 2007 - Jan 2009) recorded a 50% rate of LOV. This was largely attributed to delayed referral. We have now successfully introduced Scotland's First Fast Track Referral Pathway for Suspected GCA using TAU. This has led to a dramatic reduction in Morbidity in terms of LOV (< 5%).

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AB0604 CLINICAL FEATURES AND TREATMENT IN A COHORT OF PATIENTS WITH BEHÇET DISEASE IN A TERTIARY HOPITAL OF BARCELONA

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Background: Behçet disease (BD) is considered a systemic vasculitis according to the Chapel-Hill classification, which occurs most frequently between latitudes 30 and 45° north and in the area of the Old Silk Route. Turkey has the highest prevalence, followed by Japan. In Spain, a prevalence of 7.5 cases per 100,000 persons has been estimated. The epidemiological and clinical characteristics of European patients with BD vary with respect to those of the Turkish and Japanese cohorts.

Objectives: Description of clinical features and treatment received in a cohort of patients diagnosed with BD in an Internal Medicine Unit of a tertiary centre from Barcelona.

Methods: Retrospective, observational study. Epidemiological, clinical and laboratory data were obtained from clinical charts. SPSS package was used to perform statistical analysis.

Results: 132 patients (56.6% men) diagnosed over the last 30 years and followed-up until the censoring data were included. 112 (84.8%) were Caucasians, 15 (11.4%) from North Africa, 4 (3%) Asiatic and 1 (0.8%) from South America. 2 (1.5%) patients had a family history of BD and 9 patients (6.8%) a family history of other rheumatic diseases. 43.9% (58 patients) were HLA-B51. Oral or genital ulcers were present in 131 (99.2%) patients and skin involvement in 106 (80%) cases, 44.6% had erythema nodosum, 59% had acne-like lesions and 9% had cutaneous vasculitis. Ocular involvement was observed in 69 cases (52.3%): 27 patients unilateral and 8 bilateral anterior uveitis; 14 unilateral and 3 bilateral posterior uveitis; 10 patients unilateral and 14 bilateral panuveitis; 19 unilateral retinal vasculitis and 12 bilateral. Neurological involvement was present in 37 (28%) patients: 10 parenchymal disease and 17 cases non-parenchymal disease (aseptic meningitis or vasculitis); 8 patients benign intracranial hypertension, and 3 had dural sinus thrombosis. Articular involvement was recorded in 79 (59.8%) patients (it was observed 25

monoarthritis, 24 oligoarthritis, 6 polyarthritis and 58 patients had arthralgia). Vascular involvement was present in 43 (32.6%) cases: deep venous thrombosis in 38 patients (11 cases in locations other than the extremities); pulmonary embolism in 7; 21 thrombophlebitis; and 6 patients aneurysms (only 2 pulmonary arterial aneurysms). Digestive involvement was present in 12 (9.1%) patients, with predominant colon involvement (8 cases).

The most prescribed drugs were corticosteroids (85.6%) and colchicine (77.3%), followed by azathioprine (36.4%) and cyclosporine A (33.3%). Other prescribed drugs were thalidomide (6.1%), chlorambucil (6.9%), methotrexate (4.5%), anti-TNF-alpha therapies (infliximab 6.8% and adalimumab 2.3%), cyclophosphamide (3%), mycophenolate (3.8%), leflunomide (1.5%) and 22% received anticoagulation.

Conclusion: Clinical features of our patients are similar to those of other European cohorts, although a high prevalence of organic involvement (ocular, neurological, vascular and joint) should be highlighted.

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AB0605 SERUM NEOPTERIN AND ISCHEMIA MODIFIED ALBUMIN LEVELS ARE ASSOCIATED WITH THE DISEASE ACTIVITY OF ADULT IMMUNOGLOBULIN A VASCULITIS (HENOCH-SCHÖNLEIN PURPURA)

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Background: Immunoglobulin A vasculitis (IgAV) [formerly called Henoch-Schönlein purpura (HSP)] is an IgA mediated systemic vasculitis which primarily affects skin, gastrointestinal system and small vessels of kidneys. Exact pathogenesis of IgAV remains unknown. A few clinical studies evaluated the role of oxidative injury in the pathogenesis of vasculitis. Ischemia modified albumin (IMA) and Neopterin increased status of oxidative stress.

Objectives: The aims of the study are to investigate serum neopterin and IMA levels in patients with IgAV and evaluate the association of these markers with disease activity and relapse.

Methods: Thirty-four consecutive adult patients (24 males and 10 females) admitted to the rheumatology clinic of Ankara Numune Training and Research Hospital meeting the IgAV American College of Rheumatology (ACR) criteria were enrolled in this cross-sectional study. Demographic and clinical features of IgAV and control group were recorded into a pre-defined protocol. Disease activity was categorized as "remission" or "active" according to BVAS. BVAS ≥ 1 was accepted "active". Serum neopterin levels, hsCRP and IMA were evaluated according to BVAS and compared to healthy control group.

Results: Serum median (IQR) neopterin, IMA levels and hsCRP were higher in the study group than in control group [2.01 (12.5) ng/mL vs. 1.77 (1.37) ng/mL, 0.67 (0.2) ng/mL vs. 0.43 (0.17) ng/mL, 5.6 (17.1) mg/L vs. 1.55 (1.6) mg/L, p=0.095, p<0.001 and p=0.002, respectively]. When evaluated according to BVAS, IMA and hsCRP levels were significantly higher in the group with active disease [0.77 (0.12) vs. 0.61 (0.13) and 14.85 (4.6), p=0.009 and p=0.03, respectively]. Serum neopterin levels were significantly higher in the active group compared to BVAS [18.95 (32.36) vs. 1.63 (1.48), p<0.001].

Conclusion: Oxidative stress is important in HSP pathogenesis. Roles of hsCRP, Neopterin and IMA as potential markers of diagnosis and disease activity seem to be worth studying in the future studies with larger study groups.

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