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