AB203. 245. An 8-year audit of temporal artery biopsies in suspected giant cell arteritis (GCA), a comparison of histopathology results with erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP) in a tertiary referral center

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Background: Giant cell arteritis is one of the most common types of primary vasculitis in the elderly population. It is associated with severe morbidity due to the ischemic nature of the condition. Prompt diagnosis leads to better outcomes, potentially avoiding the systemic spread and mortality associated with this condition. The purpose of this audit is to retrospectively compare C-reactive protein (CRP) and erythrocyte sedimentation rate (ESR) taken at or within one-week pre-biopsy with the results of temporal artery biopsies.

Methods: All patients that underwent temporal artery biopsy for giant cell arteritis (GCA) between 01/11/2009 to 01/11/2017 were included. An electronic search of the histopathology database was completed to identify our sample.

Results: Our search yielded sixty-three patients in the eight-year time period that underwent biopsy, 54% were female (n=34) and 46% (n=29) were male with an average age of 73.03 years. Sixty-seven biopsies were performed (bilateral n=4), with 14.28% of patients having positive biopsies (n=9), 7.93% inconclusive (n=5) and 77.77% negative (n=49). In those with positive biopsies, 5 patients had elevated laboratory investigations: elevated ESR only (n=2, sensitivity =40%; specificity =63.63%) elevated CRP only (n=1: sensitivity =50%; specificity =44.44%) and both elevated ESR and CRP (n=2; sensitivity =50%; specificity =60%).

Conclusions: The results of this study indicate that ESR and CRP tests alone or combined were of questionable accuracy in the diagnosis of GCA in this sample. Results conflict with previous studies, which have reported considerably higher sensitivity and specificity values for these tests. Further research investigating the results of these laboratory investigations in combination with the clinical assessments is planned.

Keywords: Temporal; artery; biopsy; erythrocyte sedimentation rate (ESR); C-reactive protein (CRP)

doi: 10.21037/map.2018.AB203

Cite this article as: McCarroll P, Devine M, Power D, Zafar A, Mulcahy E, Burke PE, Abduldaim Y, Kavanagh E, Moloney MA. An 8-year audit of temporal artery biopsies in suspected giant cell arteritis (GCA), a comparison of histopathology results with erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP) in a tertiary referral center. Mesentery Peritoneum 2018;2:AB203. doi: 10.21037/map.2018.AB203