ROLE OF AMPULLARY BIOPSY IN AUTOIMMUNE PANCREATITIS

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Background: Autoimmune pancreatitis (AIP) is a rare disorder of the pancreas with a prevalence and incidence of 4.6/100,000 & 1.4/100,000 population in Japan. Clinical presentation includes abdominal pain (65%), jaundice (62%), weight loss (42%), with approximately 85% of patients having abnormalities of the pancreas on imaging. The Mayo Clinic HISORt criteria is most commonly used for diagnosis. However, often the diagnosis is ambiguous and can lead to significantly morbid surgical resections for a disease that is responsive to immunosuppression. Therefore, endoscopic ampullary biopsies have been proposed as an adjunct to the diagnosis. There have relatively been a few studies looking at the diagnostic yield of ampullary biopsies in AIP, most reporting a high specificity and a sensitivity of 50-60%

Aims: (i) To correlate ampullary biopsy specimens on patients diagnosed with AIP via HISORt criteria. We aim to determine the diagnostic yield for ampullary biopsies in AIP in our cohort of patients. We believe ampullary biopsies provide valuable diagnostic information in AIP and should be used as an adjunct in the diagnostic work up for AIP. (ii) We also aim to correlate positive ampullary biopsies with abnormalities in serum IgG-4 levels (normal range 0.05 – 1.25 g/L)

Methods: We conducted a retrospective chart review of patients with autoimmune pancreatitis fulfilling the HISORt criteria, seen at the Vancouver General Hospital, Vancouver BC, from January 1, 2011 till July 31, 2016, who also had ampullary biopsies taken endoscopically. A positive biopsy, as defined in the literature, was more than 10 IgG-4 Immunohistochemically (IHC) positive plasma cells per 1 high power field (HPF) at a magnification of x400. We also collected serum IgG-4 values for this cohort of patients

Results: To date, there have been 20 patients, mean age of 62 with 80% males, with AIP as per HISORt criteria, that have also had ampullary biopsies taken. Out of these, only 6 met the definition for a positive ampullary biopsy, giving a diagnostic yield of 30%, whereas the rest did not meet a histological diagnosis of AIP on ampullary biopsies. Out of the 20 patients, 50% (10) had elevated serum IgG-4 levels. All patients with a positive ampullary biopsy had an elevated serum IgG-4 level

Conclusions: Ampullary biopsies, if positive, provide a specific diagnostic adjunct in patients with presumed Autoimmune Pancreatitis as per the HISORt criteria. However, this is true only in approximately one third of such patients, as per this retrospective chart review. This is similar to prior studies. Additionally, we found serum IgG-4 levels only elevated in half of our cohort of patients with AIP. Serum IgG-4 levels however, correlate strongly with positive ampullary biopsies. More prospective studies will be needed to further confirm these findings
Funding Agencies: None