PTH-128

BRAVO WIRELESS PH MONITORING CAN SAVE TIME WHEN INVESTIGATING PATIENTS WITH EOSINOPHILIC OESOPHAGITIS

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Introduction The incidence of eosinophilic oesophagitis (EoE) is increasing. Following diagnosis, the initial therapy is to place patients on proton pump inhibitors (PPI) and repeat oesophageal biopsies, as 30% of patients will be PPI responsive. As acid reflux is known to cause eosinophilic oesophagitis, pH impedance and manometry is also carried out to aid management. This is usually carried out as a separate hospital visit. An alternative test is wireless pH monitoring with a BRAVO device during which a pH monitoring chip is attached to the distal oesophagus at the same time as a gastroscopy. This is also an opportunity to take the repeated biopsies to assess PPI response; pH monitoring could therefore be integrated into the repeated endoscopic pathway and avoid the extra appointment for standard pH impedance. The fragile 'crêpe-paper' mucosa of EoE has been raised as a potential source of early detachment of BRAVO capsules thereby limiting their use in this condition.

Aim To assess whether there is any difference in the detachment day of the BRAVO capsule in patients with EoE when compared to other conditions and thereby determine its use in the pathway for the investigation of EoE patients.

Method The electronic records of patients with EoE who also had a BRAVO were examined retrospectively between June 2008 and January 2018 at a single centre. The total time of recording of the BRAVO capsule was noted and whether reflux was significant. In addition the number of eosinophils per high power field on the oesophageal biopsies taken prior to or at the same time as the BRAVO study was recorded.

Results Ten patients with EoE underwent 12 BRAVO studies (M: F 1:1, age range 18–56). One study detached within one day, three after two days and eight after four days. The patient whose capsule detached early went on to have a second BRAVO study lasting 4 days. Detachment times were compared to those for non-EoE in our department for a single calendar year (December 2016–December 2017). There was no significant difference in detachment rates between these two groups ($p < 0.1$). The range of eosinophils per HPF was 20 to 71 (average 38.1, standard deviation 20.5).

Conclusion Bravo pH manometry is a useful investigation in patients with EoE and beneficial to the patient; reducing the number of invasive procedures by allowing the attachment of the BRAVO capsule at the same time as taking post-PPI biopsies. The detachment was not significantly greater in patients with EoE although the numbers are small. There was no correlation between eosinophil count per HPF and attachment times. The only drawback is that patients are expected to stop PPI 7 days prior to the BRAVO being placed with a theoretical risk of a recrudescence of oesophageal eosinophilia in that time although the standard time for redevelopment of EoE is around 6–8 weeks.

Pancreas

OTU-017

DOES IGG4 LEVEL AT THE TIME OF DIAGNOSIS CORRELATE WITH OUTCOME IN IGG4-RELATED DISEASE?

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Introduction IgG4-related disease (IRD) is a multisystem disease where raised serum IgG4 may predict relapse and multi-organ involvement.¹ The aim of this study was to compare demographics, multi-organ involvement, response to treatment, relapse rate and end organ damage in patients with versus those without a raised serum IgG4 level at the point of diagnosis.

Methods Patients diagnosed with IgG4 disease between January 2005 and September 2016 according to the ICD Criteria formed the study population. Patients were divided into two groups – Group 1: patients with elevated serum IgG4 and Group 2: normal serum IgG4. Patients' demographics, other organs involvement, response to steroid treatment, relapse rate and long-term complications (organ dysfunction, exocrine and endocrine insufficiency) were compared between the 2 groups. For this study, we analysed the data based on 2 levels of IgG4 A: >than upper limit of normal and B: Twice the upper limit of normal as reported in literature.¹ The patients were followed up for at least 12 months from the time of diagnosis.

Results Of the 47 patients identified, 31 (66%) patients had elevated serum IgG4 at diagnosis. There was no statistically significant difference between the 2 groups in age (median age 66 vs 63, $p = 0.116$) and sex (male 85.7% vs 58.8%, $p = 0.072$); other organs involvements (85.7% vs 94.1%, $p = 0.635$), response to steroids (92.6% vs 87.5%, $p = 0.062$), relapse rate (32.1% vs 11.8%, $p = 0.165$) and organ dysfunction (10.7% vs 5.9%, $p = 1.0$). When the serum IgG4 cut-off was twice the upper limit of normal (ULN), more patients had exocrine insufficiency (78.9% vs 46.2%, $p = 0.035$). However other organs involvement (89.4% vs 88.5%, $p = 1.0$), response to steroids (94.4% vs 88.0%, $p = 0.628$), relapse rate (36.8% vs 15.4%, $p = 0.160$), organ dysfunction (10.5% vs 7.5%, $p = 1.0$) and endocrine insufficiency (42.1% vs 46.2%, $p = 0.973$) showed no statistically significant difference. Median follow-up was 40 months (range 12–140 months).

Conclusions This single centre observational study shows that a raised serum IgG4 at the point of diagnosis greater than ULN did not affect prognosis in patients with IRD. However a raised serum IgG4 greater than two times the ULN was significantly associated with pancreatic exocrine insufficiency and relapse in patients with IgG4-RD. Larger multicentre studies with longer follow-up are required to corroborate these findings and define the role and cut-off value of serum IgG4 in outcomes of IgG4-RD.

REFERENCE

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