P340 OESOPHAGEAL TRANSIT DURING FASTING AND NON-FASTING PERIOD IN PATIENTS WITH DYSPHAGIA

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Introduction Patients complaining of dysphagia may undergo oesophageal motility investigation which are commonly performed during fasting period with fluid swallows (barium swallow, high-resolution manometry, etc.). It is unknown whether this may give true reflection of patient's dysphagia as transit during fasting and non-fasting period may differ and no solid bolus may be introduced during testing. This study investigates the topic in question in dysphasia patients with normal motility and obstructive disorders.

Method Dysphasia patients were selected between January 2018 to December 2019 who underwent:-

(i) High-resolution manometry and classified with normal motility, OGJ outflow obstruction (OGJOO) and achalasia groups.[1]

(ii) Multichannel intraluminal impedance transit (MIIT) to assess oesophageal transit time[2] during fasting period and again during non-fasting period (2–3 hrs after patient had consumed solid food breakfast meal).

Statistical *t*-test tests were employed to assess statistical differences in the oesophageal transit time between fasting and non-fasting period in each group

Results Total of 76 patients were selected (M:F=39:37, aged 27–77 years old). Oesophageal transit time between fasting and non-fasting period were demonstrated statistically significant in the normal motility group (p=0.0282), OGJOO group (p=0.0035) and achalasia group (p=0.0013). Notably the oesophageal transit in the non-fasting period were approximately twice as longer than the fasting period. Table 1 details the descriptive statistics of the oesophageal transit times in the patient groups.

Abstract P340 Table 1 oesophageal transit time during fasting and non-fasting period in patients with dysphagia (in minutes)

Group	N	Fasting period Mean [5% - 95% CI]	Non-fasting period Mean [5% - 95% CI]
Normal motility	21	1.80 [1.45 – 2.16]	4.78 [1.97 – 7.60]
OGJOO	18	2.25 [1.74 – 2.76]	6.44 [4.64 – 8.23]
Achalasia	37	46.6 [35.0 – 58.2]	110.3 [72.5 – 148.2]

Conclusion This study identified oesophageal transit to be twice as long in non-fasting period which may be clinically significant as our current diagnostic practice are performed with fluid during fasting state. We suggest solid swallow assessments to be considered in clinical practice swallows as secondary assessment when standard fluid swallows cannot explain patients' dysphagia symptoms.

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P341 SYSTEMATIC REVIEW AND META-ANALYSIS: PREVALENCE OF ORGANIC GASTROINTESTINAL CONDITIONS IN PATIENTS WITH IRRITABLE BOWEL SYNDROME

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Introduction Studies have suggested that organic diseases particularly bile acid diarrhoea/malabsorption, carbohydrate malabsorption, microscopic colitis, pancreatic exocrine insufficiency and small intestinal bacterial overgrowth, may be misdiagnosed as irritable bowel syndrome (IBS). We conducted a systematic review and meta-analysis of the prevalence of these conditions in adults with IBS-like symptoms.

Methods PubMed, EMBASE, CINAHL and Cochrane were searched from January 1978 (1st publication of the Manning Criteria) to July 2019. Studies were included if they prospectively or retrospectively evaluated the prevalence of any of these conditions in consecutive patients meeting Manning, Kruis or Rome I-IV criteria for IBS. These disorders were defined as follows: Bile acid diarrhoea/malabsorption –a ^{75}Selenium taurocholic acid scan (SeHCAT) with 7-day retention <15%; Carbohydrate malabsorption - a positive lactose, fructose, sucrose, sorbitol or mannitol breath test; Microscopic colitis - abnormal histological findings on colonic biopsies meeting criteria for lymphocytic or collagenous colitis; Pancreatic exocrine insufficiency - faecal elastase level <200 µg/g; Small intestinal bacterial overgrowth- a positive lactulose (LHBT) or glucose hydrogen breath test (GHBT), or a bacterial count of $>10^5$ cfu/mL in the jejunal aspirate.

Results Bile acid diarrhoea/malabsorption: the pooled prevalence of an abnormal scan in 8 studies (n=706) was 36.1%.

Carbohydrate malabsorption: 36 papers (n=7,667) gave a pooled prevalence of a positive lactose, fructose, sorbitol or mannitol breath test as 47.4%, 67.8%, 60% and 20%, respectively.

Microscopic colitis: the pooled prevalence from 16 studies (n=4,770) was 2.9%.

Pancreatic exocrine insufficiency: the pooled prevalence from 2 papers (n=478) was 4.6%.

Small intestinal bacterial overgrowth: 32 and 18 studies (n=4,381 and 1,710) used LHBT and GHBT giving a pooled prevalence of a positive LHBT or GHBT of 40.4% and 26.5% respectively. Prevalence was 18.3% from the 5 studies (n=448) using bacterial count.

There was significant heterogeneity in effect sizes of each of these conditions.

Conclusion Systematic review suggests that organic conditions in the gastrointestinal tract in patients with IBS-like symptoms are not rare. The need to exclude these treatable organic disorders systematically will be challenging in clinical practice in view of the large number of patients presenting with these symptoms. Future international guidelines on management of IBS should be revised accordingly.