found to have a positive TTG (5% of cohort, 6% of those tested). CD was confirmed by endoscopic biopsy in three patients, with two not undergoing endoscopy locally due to their geographic location, giving a prevalence of CD in this cohort of 5–7%.

The most common site of fracture was the metatarsals (5/7, 71%), with hallux sesamoid and fibula fractures detected in one patient each respectively. Six patients with possible or confirmed CD underwent DEXA. No patients had osteoporosis, with osteopenia (T-Score between -1.0 and -2.5) found in three patients (3/6, 50%). Coexistent vitamin and mineral deficiency were common in the CD patients (iron, 2/6 (33%); vitamin B12, 2/5 (40%); folate, 1/4 (25%); vitamin D, 2/6 (33%)).

Conclusions In this cohort of patients with stress fractures, the prevalence of CD was between 5% and 7%, approximately 5-fold higher than general UK population estimates. Screening for CD with serological testing should be considered in all patients presenting with stress fractures. Stress fractures were not associated with osteoporosis in the patients with CD, and only 50% had osteopenia, suggesting that coeliac disease and the associated malabsorption leads to stress fracture via mechanisms separate from reduced bone density.

PWE-023 COELIAC DISEASE – OLDER PATIENTS HAVE THE MOST EXTENSIVE SMALL BOWEL INVOLVEMENT ON CAPSULE ENDOSCOPY

Stefania Chetcuti Zammit*, David S Sanders, Reena Sidhu. *Sheffield Teaching Hospitals, Sheffield, UK*

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Introduction The relationship between symptomatology, serology and findings on small bowel capsule endoscopy (SBCE) in patients with coeliac disease (CD) remains unclear. Clarifying such associations will help determine if symptoms and serology can predict severity and extent of disease on SBCE.

Methods Patients with newly diagnosed CD (villous atrophy on duodenal histology and positive CD serology) were recruited. Patients underwent a SBCE at the time of diagnosis. Information on SBCE was recorded. Signs and symptoms at presentation, serological markers, histological classification of disease in the duodenum were noted.

Results Sixty patients with newly diagnosed CD (mean age 44.9 years SD±17.4, 17 - 76) were included in this study. Older patients ($p=0.025$) and patients presenting with iron deficiency anaemia had more extensive small bowel (SB) involvement ($p=0.026$). Patients presenting with weight loss were more likely to have SB involvement beyond the duodenum ($p=0.027$). Patients presenting with iron deficiency anaemia ($p=0.038$) and weight loss ($p=0.009$) were significantly older at diagnosis. Serum albumin was lower in those patients diagnosed later on in life ($p=0.007$).

There was no significant association between anti-tissue transglutaminase antibody ($p=0.396$) and extent of affected SB mucosa.

Patients with more severe Marsh classification of disease on histology from the duodenal bulb had more extensive SB involvement ($p=0.017$).

Conclusions This is the largest study on newly diagnosed CD and SBCE. Older patients are likely to have more extensive disease on SBCE at diagnosis. Symptoms and serology had no

impact on the findings on SBCE apart from weight loss and iron deficiency anaemia.

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PWE-025 PANORAMIC VERSUS AXIAL SMALL BOWEL CAPSULE ENDOSCOPY IN OVERT OBSCURE GASTROINTESTINAL BLEEDING

Stefania Chetcuti Zammit*, Mark E McAlindon, Reena Sidhu. *Sheffield Teaching Hospitals, Sheffield, UK*

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Introduction Literature comparing axial small bowel capsule endoscopy (SBCE) (Pillcam, Given Imaging) and panoramic SBCE (Capsocam, Capsovision) in obscure gastrointestinal bleeding (OGIB) is limited and contradictory [1,2].

Methods Consecutive patients who presented with overt OGIB at a tertiary centre over a 5 year period underwent either Capsocam SBCE or Pillcam SB3 SBCE. All had negative gastroscopies and colonoscopies/CT colonographies. SBCEs were reviewed by 2 experts. Findings in the 2 groups were compared.

Results 94 patients (39.4% Capsocam; 60.6% Pillcam; 57.4% males; mean age 64.3 ± 18.0 years) were included. Both groups were age ($p=0.174$) and gender ($p=0.137$) matched. Severity of anaemia ($p=0.053$) and duration of anaemia ($p=0.264$) were similar in both groups.

There was no difference between groups in incomplete SBCEs ($p=0.151$).

Diagnostic yield (DY) was comparable in both groups but Pillcam had a higher DY than Capsocam in the stomach (table 1).

Abstract PWE-025 Table 1: DY of panoramic and axial SBCE for patients with overt OGIB;

	Capsocam n(%)	Pillcam n(%)	Significance (p)
Gastric DY	3 (8.1)	15 (26.3)	0.033
Small bowel (SB) DY	17 (45.9)	25 (43.9)	0.842
Colon DY	2 (5.4)	3 (5.3)	0.976

Capsocam identified blood (2, 5.4%), erosions (1, 2.7%) and ulcers (1, 2.7%) in the stomach. Pillcam showed blood (4, 5.4%), erosions (11, 19.3%), ulcers (2, 3.5%), varices (1, 1.8%) and GAVE (1, 1.8%) in the stomach.

Patients who underwent Capsocam examination had the following findings in the SB: 1 (2.7%) ulcer, 7 (18.9%) angioectasia, 8 (21.6%) blood, 2 (5.4%) erosions, 1 (2.7%) tumour, 1 (2.7%) diverticulum. Patients who underwent Pillcam had these findings in the SB – 10 (17.5%) ulcers, 11 (19.2%) angioectasia, 7 (12.3%) blood, 19 (33.3%) erosions, 1 (1.75%) tumour, 2 (3.51%) diverticulum, 2 (3.51%) phlebotomies, 4 (7.02%) polyps, 1 (1.75%) haemangioma, 1 (1.75%) intussusception.

Conclusions SB DY was comparable between Capsocam and Pillcam groups in patients with overt OGIB but Pillcam offered a better gastric DY than Capsocam. This might be of

relevance as a considerable number of lesions are missed in the upper GI tract in patients undergoing gastroscopy.

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PWE-026

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PWE-027

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PWE-028 UTILITY OF MIROVIEW EXPRESS PLAY TO DIAGNOSE PATHOLOGY ON CAPSULE ENDOSCOPY COMPARED WITH NORMAL PLAY

Esther Hawkes*, Praful Patel, Markus Gwiggner, Imdadur Rahman. *University Hospital Southampton, NHS Foundation Trust, Southampton, UK*

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Introduction Capsule reading is a time-consuming process when in normal play, in which all captured images are analysed by the reader. MiroView™ client 4.0 video (Intromedic, Seoul) features a new express play function, introduced to reduce reading times by filtering out similar non-diagnostic images using an informatics algorithm. Our aim was to determine the positive and diagnostic finding concordance in Express Play compared with normal play.

Methods A database of capsule procedures utilising the new software between March 2018 and January 2019 were retrospectively analysed. For each positive finding identified on normal play and captured with an image, the footage was cross-checked using express play to see if the positive finding was also captured. Out of these, the diagnostic findings from both normal and express views were determined.

Results 313 CE procedures with Express Play available were performed in the study period and 224 had positive findings. The median age was 54 years with 55.2% females, the main indications were occult GI bleed (n=68), diarrhoea ± other symptoms (n=58) and overt GI bleed (n=32). A total of 368 positive findings were identified with normal play with an 88.3% (n=328) concordance on Express Play. Of the 43 missed findings, 9 were diagnostic: lymphangiectasia (n=3), angiodysplasia (n=2), polypoidal mass (n=1), varices (n=1),

ulceration (n=1) and erosion (n=1). The diagnostic finding concordance in Express Play was 127/139= 91.4%. The negative predictive value for a diagnostic finding in Express Play was 88.1%.

Conclusions Express Play, which allows a quicker reading of capsule endoscopy, detected a high proportion of pathologies and has good diagnostic concordance with normal play. However, a small number of diagnostic pathologies are still being missed and therefore express mode needs more development before it can be used in routine reporting. Further improvements to the software algorithm are currently being undertaken to bring diagnostic concordance even higher.

PWE-029 ARE 2 HEADS BETTER THAN 1: RANDOMISED COMPARISON OF MIROCAM SINGLE-TIP V DOUBLE-TIP CAPSULE ENDOSCOPE

Esther Hawkes*, Praful Patel, Markus Gwiggner, Imdadur Rahman. *University Hospital Southampton, NHS Foundation Trust, Southampton, UK*

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Introduction Advancements in capsule endoscopy (CE) have led to the introduction of double ended capsule endoscopes. With a second camera on the rear end, these capsules can collect double the number of images per second compared to single ended capsules, and provide a field of view of 340 degrees, potentially doubling the area of bowel mucosa visualised. This, however, comes at the cost of a greater size. The clinical benefit of this additional camera has not been confirmed.

Methods Prospective randomised cohort study of single v double tip CE from March 2018 to January 2019. Capsule reading speed and reporting was done as per individual preferences. In double-tip studies, readers were advised to alternate between cameras based on which gave the best views. Primary outcome measures were the positive yield (PY) and diagnostic yield (DY). Secondary outcome measures were quality of bowel views, gastric transit time (GTT), small bowel transit time (SBTT) and completion rate (CR).

Results 326 CE procedures were performed during the study period: 201 single-tip v 125 double-tip. There was no statistical difference between the PY and DY (147/201= 73.1% v 90/125= 72.0%, p=0.82 and 86/201= 42.8% v 59/125= 47.2%, p=0.44 respectively). Despite the size difference, the transit times and completion rates between the 2 capsules were also similar (Median GTT 25 min v 28 min, p=0.22, Median SBTT 259 min v 247 min, p=0.35, CR 177/201= 88.1% v 114/125= 91.2%, p=0.37). Bowel views was reported as poor in significantly fewer double-tip than single-tip capsules (4.7% v 27.3%, p<0.01).

Conclusions Although this study demonstrates that the double-tip capsule provides better views of the bowel mucosa than single-tip, due to the ability to alternate between camera sides, this did not translate into higher diagnostic yields. It may be that a different protocol for reading is required for the double-tip capsule to maximise use of the improved field of view, such as viewing both cameras simultaneously. The size of the capsule was not shown to affect the transit or completion rate.