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

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

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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

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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.