

**PTU-065 REDUCING CAPSULE ENDOSCOPY READING TIMES:  
EFFICACY OF NEW PLAYBACK FUNCTIONS**

doi:10.1136/gut.2011.239301.193

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**Introduction** Capsule endoscopy (CE) has proven to be a valuable tool in the evaluation of obscure GI bleeding, suspected Crohn's disease, coeliac disease and polyposis syndromes. The reading time and interpretation of video capsule data is very time consuming given that, in total, more than 50,000 images have to be reviewed. Recently, Olympus capsule endoscopy software systems have been equipped with auto-speed adjusted, express view and overview functions. The aim of this study was to evaluate the new functions by analysing the diagnostic yield of CE and the reading time of the new playback features by comparing it with conventional analysing systems.

**Methods** Data on 42 patients who underwent CE were obtained, and two experienced CE readers (>100 cases) analyzed the CE images independently using either the overview with express selected function or the overview with auto-speed adjusted function respectively. All CE videos were read blinded at 15 frames per second using the two new functions. The diagnostic yield was then compared to the conventionally read CE findings. All CE recording were done using the Olympus (Keymed UK) capsule endoscopy systems and read using the Olympus EndoCapsule software package.

**Results** 42 patients (20 male, 22 female) with a mean age of 49.3(±21.2) years were included in the study. Clinically significant findings were found in 24/42 (60%) of patients. Using overview functions alone would have resulted in missing 6/24 (25%) clinically significant findings, while both express selected and auto-speed adjusted methods missed 1/24 (4%) clinically significant findings each. The average reading time for the auto-speed function plus overview was 35(±10) minutes and was significantly ( $p=0.01$ ) more than that for express selected plus overview which was 20(±5) min. If the CE videos were read conventionally at 15 frames per second the average reading time based on the length of the recording would have been 47 (±14) min.

**Conclusion** The diagnostic miss rate was high when overview functions alone were used. There was no significant difference in positive findings between auto-speed adjusted and express selected functions when used along with overview functions and the reading time using the new systems was significantly shorter than the conventional system. The new playback systems can efficaciously reduce reading times

of CE with the express selected function reducing readings time significantly more than the auto-speed adjusted function.

**Competing interests:** V. Subramanian: None Declared, J. Mannath: None Declared, E. Telakis: None Declared, K. Rangunath Conflict with: educational and grant support from Olympus (Keymed UK), C. Hawkey: None Declared.

**Keywords** capsule endoscopy, diagnostic yield, reading times.