

It is a useful technique to exclude *H. pylori* gastritis. The clinical relevance is that this technique allows for targeted biopsies, reducing the miss rate and thus increasing the diagnostic yield.

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**PTU-034** **DOUBLE BLIND RANDOMISED CONTROLLED TRIAL OF MAGNETICALLY STEERABLE GASTRIC CAPSULE ENDOSCOPY (MSGCE) VS. CONVENTIONAL GASTROSCOPY FOR DETECTION OF BEADS IN A PORCINE STOMACH**

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**Introduction** Gastroscopy is uncomfortable for patients and incurs the risks of intubation and sedation. Capsule endoscopy is well tolerated and recently a handheld magnet has been developed to enable steering of the capsule to visualise all areas of the capacious stomach. Our preliminary data suggests that a novice can identify all beads sewn into a porcine stomach within 4 min after 40 consecutive examinations.<sup>1</sup> We performed a double blind randomised controlled trial comparing MSGCE with conventional gastroscopy in the detection of beads in the same model.

**Methods** Ex-vivo porcine stomach models were used in a standard housing unit. MSGCE was performed according to a standard protocol using 1000mls of water to distend each stomach and a combination of positional change (head down, 30° left lateral, 30° right lateral) and magnetic control to steer the capsule. Each model was examined in a standard fashion by gastroscopy and subsequently MSGCE using MiroCam Navi (Intromedic Ltd). Two blinded investigators (MFH and IR) competent to perform both procedures were allocated randomly to perform either gastroscopy or MSGCE on each model.

This was performed as a non-inferiority study with an expected sensitivity of 90% for both (0 estimated difference), a specificity of 100% and a difference of interest 10 percentage points (i.e., 80% is significantly worse). A sample size of 85 beads was needed to achieve this statistical power. Twelve porcine stomachs were prepared with beads as follows: 2 × 0 beads, 2 × 1 bead, 2 × 2 beads, 2 × 3 beads, 2 × 4 beads, 2 × 5 beads, giving a total of 30 beads. The study was conducted in three rounds, giving a total of 90 beads to be identified. Number of beads identified and procedure duration was recorded.

**Results** Gastroscopy correctly identified 88% (79/90) beads, MSGCE correctly identified 89% (80/90) beads and thus is non-inferior to gastroscopy in this setting (95% CI 82.54–95.46%). Mean examination times for gastroscopy and MSGCE were 3.34 min and 9.90 min respectively. MSGCE overestimated the number of beads present on a single occasion.

**Conclusion** MSGCE is equivalent to conventional gastroscopy in the detection of beads placed in a porcine stomach model. Procedure duration was longer for MSGCE compared to gastroscopy. Further studies in humans are necessary to define the scope and utility of this exciting new technique.

**REFERENCE**

- Hale MF, Drew K, Baldacchino T, Anderson S, Sanders DS, Riley SA, Sidhu R, McAlindon ME. Gastroscopy without a gastroscope! Feasibility in a porcine stomach model using a magnetic capsule. *Abstract. British Society of Gastroenterology Annual Meeting, Jun 2013*

**Disclosure of Interest** None Declared.

**PTU-035** **SINGLE CENTRE EXPERIENCE WITH ENDOCLOT POWDER SPRAY FOR UPPER GASTROINTESTINAL BLEED**

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**Introduction** Endoclot® (EPI) and ‘Hemospray’ (Wilson Cook) are haemostatic powders marketed for endoscopic use. The

**Abstract PTU-035 Table 1**

Age and sex	Endo diagnosis	Endotherapy	Co morbidity	Outcome	30 days mortality Y/N
63F	DU	Adrenaline + balloon tamponade +	DM, stroke, CKD, COAD	Haemostasis	Y
92F	DU	Endoclot	Leukaemia, TIA, HT, asthma	Haemostasis;died 11 days later,	N
85M	Multiple	Adrenaline + Endoclot (partial)	CVA, COPD, CKD	pneumonia	Y
87M	DU	Adrenaline + clips + gold probe +	CVA, CKD, AF, HT	Haemostasis	N
88M	DU	Endoclot x2	MI, AF	Died 3 days later due to sepsis	N
83M	DU	Endoclot	COPD, CVA, AF, HT, CKD,	Died 5 days later, pneumonia	Y
	DU	Adrenaline + Endoclot Adrenaline + Goldprobe + Clips + Endoclot	Carotid endarterectomy	Died 19 days later due to cardiac failure	
63M	Bleeding lymphoma – 4th part of duodenum	Endoclot via enteroscope	End stage follicular lymphoma	Died next day	N
89F	GU	Adrenaline + Endoclot	Cholangitis	Haemostasis	Y
67F	Severe bleed after gastric polyp biopsy	Adrenaline + Endoclot	DM, CKD, HT	Haemostasis	Y
77M	Gastric Erosions/ Gastric Lymphoma	Adrenaline + Goldprobe + Endoclot	Lymphoma	Died 5 days later, late rebleed	N
81M	GOJ Tear Post ERCP	Adrenaline + Endoclot		Haemostasis	Y
83M	GIST	Endoclot	AF, MI, CVA	Haemostasis	Y