(AMCO) and are increasingly used either palliatively or as a bridge to surgery (BTS) in patients in whom a definitive surgical approach is unsuitable. We evaluated short-term outcomes of malignant colorectal obstructive patients treated with SEMS in our institution over a 3-year period.

Methods A prospectively maintained database was reviewed to identify all patients who presented to our institution with AMCO between August 2010 and 2013 and who were treated with a SEMS either temporarily or permanently. Additional data was retrieved from chart and pathology reviews. A single colorectal surgeon inserted all stents under both endoscopic and fluoroscopic guidance. Data was analysed using SPSSv21 (SPSS Inc., Chicago, IL, USA) and presented as median (interquartile range). Continuous variables were assessed using analysis of variance. A p value <0.05 was considered statistically significant.

Results Sixteen patients each had a single stent inserted during the study period, either palliatively (n = 11) or as a BTS (n = 5). Their median (IQR) age was 75 (21) years and 12 (75%) patients were males. Most tumours were located in the sigmoid colon (6/16, 37%). The technical and clinical success rates were both 87.5% (14/16) and there were no SEMS-related perforations. The two unsuccessful stenting cases both had metastatic disease and required emergency surgery while five patients with potentially curable disease proceeded to elective resections. There was no procedure-related mortality. There was no difference in the median length of stay (LOS) post SEMS insertion in the palliative group compared to the BTS group [4 (4) vs. 5 (3), p = 0.2]. However, the median (IQR) LOS post acute surgery was longer than elective surgery [45 (30) vs. 14 (8) days, p = 0.018]. All patients in the BTS group were stoma-free post-operatively, while both patients who had emergency surgery ended up with permanent stomas. Finally, the stent complication rate was 6.2% (1/16), secondary to migration in a patient who was stented palliatively. The latter patient did not undergo further attempted stenting as his obstructive symptoms had been alleviated.

Conclusion AMCO poses significant challenges in management due to the frailty of the presenting patients and the high morbidity/mortality rates associated with emergency surgery. Although limited by a small sample size, our study shows that SEMS are a favourable alternative to emergency surgery for the management of AMCO. Further larger scale studies looking at long-term survival and oncological outcomes are awaited.

Disclosure of Interest None Declared.

PWE-018 HSPC1 INHIBITORS POTENTIATE THE EFFECT OF 5-FU IN PRIMARY COLORECTAL CANCER CELL MODEL

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Introduction Colorectal cancer (CRC) is the fourth most common cancer in the UK and was responsible for more than 15,000 deaths in 2011.[1] Less than 50% of patients with Dukes stage C and D survive more than 5 years.[2]

Molecular chaperone Heat shock protein (HSP) C1 is elevated in CRC.[3] HSPC1's client proteins (e.g., HER2, pNF-B, Akt etc.) are involved in key cellular pathways and apoptosis. HSPC1 inhibitors recently showed positive clinical results in breast cancer[4] and non-small cell lung carcinoma.[5] This study aims to explore the effect of combining HSPC1 inhibitors with 5-fluorouracil (5-FU), the mainstay chemotherapy, in CRC.

Methods CRC cell line HT29 were treated with HSPC1 inhibitors 17-DMAG and NVP-AUY922 as single agent and in combination with 5-FU.

Six primary CRC samples were obtained immediately following surgical resection with consent and treated with HSPC1 inhibitors. Four subsequent samples were treated with a combination of HSPC1 inhibitors and 5-FU.

Following treatment, cell metabolism rate and apoptosis were assessed using MTS and caspase-3 assay.

Results In HT29, 17-DMAG was effective in inducing apoptosis and reducing cell proliferation whereas NVP-AUY922 did not. When combined with 5-FU, 17-DMAG showed additive effect.

In primary CRC cells, a 50% reduction in cell metabolism rate was observed in 2/6 samples for 17-DMAG and 1/5 samples for NVP-AUY922. When subsequent primary samples were treated with 5-FU and HSPC1 inhibitors, significant decrease in cell metabolism rate and increase in apoptosis were observed in 1/4 samples.

Conclusion HSPC1 inhibitors are able to potentiate the chemotherapeutic effect of 5-FU in CRC cell line and this result may be replicated in primary colorectal cancer cells obtained from surgical specimen. HSPC1 inhibitors have different mode of actions which is evident in the different response observed in both HT29 and primary cells. In addition, CRC cells have individual response to HSPC1 inhibitors and some were not responsive.

Although a small sample size, this study encouraged our next phase of research combining HSPC1 inhibitors with current chemotherapeutic agents including oxaliplatin and irinotecan. Further studies will also focus on identifying potential biomarkers to select susceptible patients.

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Disclosure of Interest None Declared.

PWE-019 AN EVALUATION OF QUANTITATIVE FAECAL IMMUNOCHEMICAL TESTS FOR HAEMOGLOBIN

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Introduction The NHS Bowel Cancer Screening Programme (BCSP) in England provides biennial screening using a guaiac-based faecal occult blood test (gFOBT) for people aged 60–74 years. The European guidelines[1] recommend use of a quantitative faecal immunochemical test for haemoglobin (FIT) in population screening and the BCSP will replace gFOBT with FIT from 2016. The BCSP Southern Programme Hub (allied with the Guildford Medical Device Evaluation Centre) has evaluated FIT systems to guide future BCSP procurement. Four quantitative FIT systems suitable for population screening were evaluated: HM-JACKarc (Kyowa Medex Co. Ltd., Japan), NS-PLUS C15 Hb (Alfresa Pharma Corp., Japan), OC-SENSOR DIANA (Eiken Chemical Co. Ltd., Japan) and FOB Gold NG (Sentinel CH. SpA, Italy; analysed on a general chemistry analyser, Bio-Majesty, Jeol, Japan).