**P22** IMPACT OF ADENOMA DETECTION RATES AT FLEXIBLE SIGMOIDOSCOPY ON LONG-TERM COLORECTAL CANCER INCIDENCE AND MORTALITY

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Introduction Detection and removal of adenomas reduces colorectal cancer (CRC) risk. However, the effects of variable adenoma detection rates (ADR) on long-term CRC incidence and mortality are not known. We investigated this using data from the UK Flexible Sigmoidoscopy Screening Trial (UKFSSST).

Methods We analysed data from 167,882 UKFSSST participants, of whom 111,503 were in the control arm and 56,379 in the intervention arm. The control arm was not contacted while the intervention arm was offered a single flexible sigmoidoscopy screen. In total, 40,085 participants underwent flexible sigmoidoscopy screening at 13 trial centres. Median follow-up was 17 years. At each centre, a single endoscopist performed nearly all flexible sigmoidoscopies. We used multivariable logistic regression to classify centres into high-, intermediate-, and low-detector ranking groups based on the ADR of their main endoscopist. We calculated CRC incidence and mortality rates, and estimated hazard ratios (HRs) with 95% confidence intervals (CIs) using Cox regression.

Results Five centres were classified into the high-detector group, four into the intermediate-detector group, and four into the low-detector group. Average ADRs in the high-, intermediate-, and low-detector groups were 15%, 12%, and 9%, respectively. In all three groups, all-site CRC incidence and mortality were reduced among screened participants, compared to the control arm, and although the heterogeneity was not statistically significant, a larger effect was seen in the high-detector group (incidence: HR=0.58, 95%CI 0.50–0.67; mortality: HR=0.52, 0.39–0.69) than in the low-detector group (incidence: HR=0.72, 0.61–0.85; mortality: HR=0.68, 0.51–0.92). For distal CRC, incidence and mortality were reduced among screened participants, compared to the control arm, in all three groups and there was significant heterogeneity by detector ranking, with a substantially larger effect in the high-detector group (incidence: HR=0.34, 0.27–0.42; mortality: HR=0.22, 0.13–0.37) than in the low-detector group (incidence: HR=0.55, 0.44–0.68; mortality: HR=0.54, 0.34–0.86).

Conclusions Higher ADRs at screening flexible sigmoidoscopy result in greater long-term protection against CRC incidence and mortality.

**P23** ABLATION AND COLD AVULSION (ACA) FOR THE MANAGEMENT OF NON-LIFTING, SCARRED COLORECTAL LESIONS

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Introduction A scarred submucosa limits the effectiveness of lifting during endoscopic mucosal resection (EMR) and may necessitate surgery. Endoscopic submucosal dissection (ESD) of scarred lesions is technically difficult and carries a significant risk of perforation. We report our experience of a salvage approach using ablation and cold avulsion (ACA) as an adjunct to EMR.

Methods Lesions treated with ACA between January 2015 – October 2019 were identified from a retrospective database. Following EMR, residual areas of non-lifting scarred tissue were ablated using high power argon plasma coagulation (APC). The cauterised polyp tissue was then avulsed using non-spiked biopsy forceps. Surveillance endoscopies and histology reports were reviewed and evidence of polyp recurrence documented. Recurrence was treated with repeat ACA.

Results Eighty-six patients (male n=47, mean age 69 years, range 49–86) with 88 polyps (median size 36.6 mm, range 10–120 mm) underwent ACA. Thirty-eight (43%) lesions were located proximal to the transverse colon. Forty-two lesions (47.7%) were recurrent lesions. The remaining 46 (52.3%) were partially non-lifting, de novo lesions.

Conclusions Higher ADRs at screening flexible sigmoidoscopy result in greater long-term protection against CRC incidence and mortality.
Abstracts

P25 SIGMOID LOOPING: CREATION OF DOMAINS FOR A MAGNETIC ENDOSCOPE IMAGING-BASED SCORE

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Introduction The 2013 national colonoscopy audit found that pain or looping were the most common reasons for incomplete colonoscopy. Sigmoid colon intubation is the most painful part of colonoscopy and looping may occur even in the hands of expert endoscopists. Magnetic endoscope imaging (MEI) facilitates loop identification and resolution. The aim of this study was to identify components of looping and, from these, reach consensus on which should form sigmoid looping domains for an MEI-based sigmoid looping score.

Methodology A panel of 12 endoscopists from across the UK, with a range of experience in colonoscopy, took part in a modified Delphi consensus process. A detailed PubMed literature search was performed to identify prior studies. Potential components of sigmoid looping were extracted and provided to the panel as statements, along with an evidence summary. Statements were voted and commented on anonymously and adjusted through subsequent voting and discussion rounds to achieve consensus. Consensus was defined in advance as >80% agreement.

Results 46 relevant papers were identified. One paper described a classification for sigmoid looping. A total of 4 Delphi rounds took place. 12/12 panel members took part in Delphi rounds 1 and 2, 11/12 in round 3 and 10/12 in round 4. Initially, consensus was gained on categories, followed by subcategories as the Delphi progressed. Consensus was reached for 7 domains and for potential categorisation within each domain.

1. Loop Type (with definitions for each)
2. Scope shaft angulation (<90, 90–180, 180–270, >270 degrees, excluding scope tip)
3. Loop Size (Small, Medium, Large)
4. Loop duration (Minutes and seconds)
5. Loop Recurrence (Yes, No)
6. Extent of intubation on MEI (colonic segment)
7. MEI image quality (Adequate, Inadequate)

Results are summarised in Table 1.

Conclusion This is the first effort to develop consensus-based categorisation of sigmoid looping, as identified on MEI. It highlights components of looping that are measurable on MEI and provides a platform for further research into looping and pain. We now plan to validate each component by testing for interrater reliability. The score can then be used to research looping and pain in different contexts.

REFERENCE