


The future of surgical endoscopy

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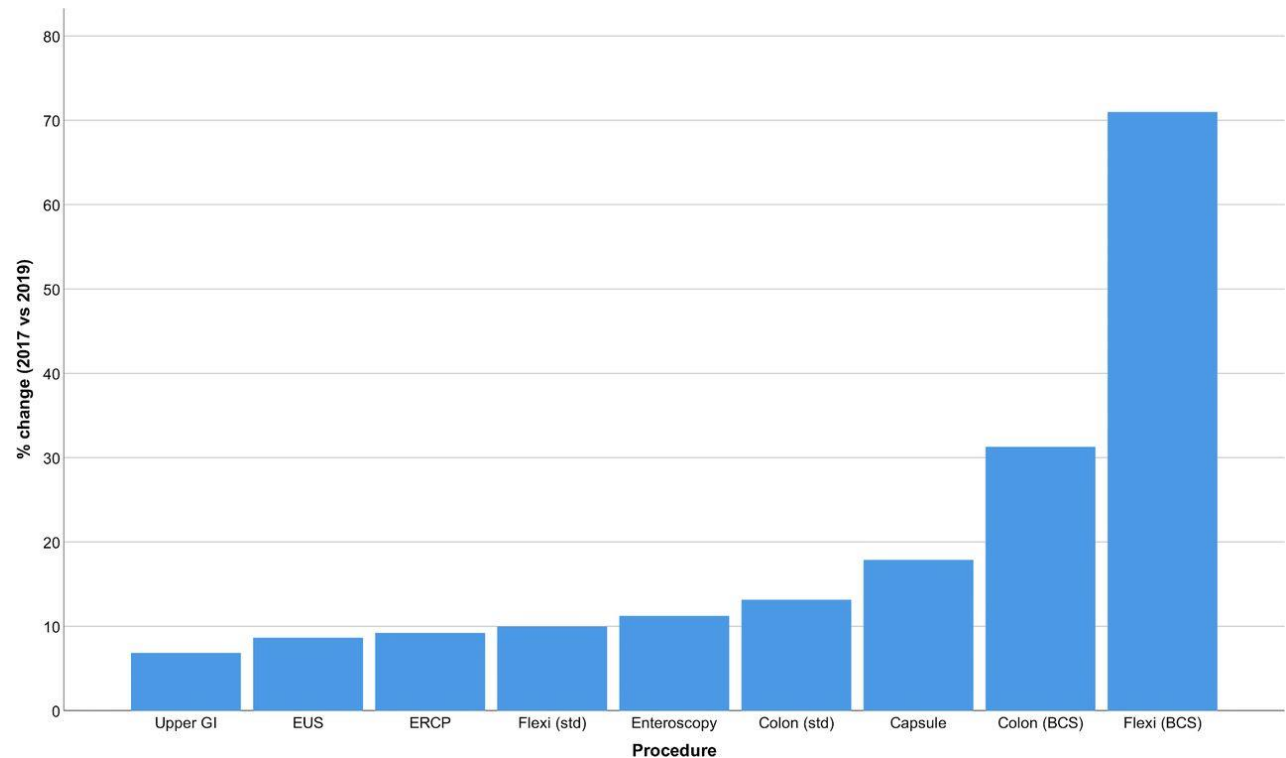
THE PRESENT

- Diverse global practice
- Not all colorectal surgeons scope
- Predominantly gastroenterologists in some countries / regions
- Different healthcare system drivers & brakes



CURRENT (PRE-COVID) ROLES

- Diagnostic for symptomatic patients (rule out CRC)
- CRC screening
- Therapeutic – polypectomy / stent / APC / clipping etc
- Surveillance – polyp / post-cancer resection / genetic syndromes / IBD etc



Ravindran S, et al. *Frontline Gastroenterology* 2021;12:451–460.

PRE-COVID CHALLENGES

FOR DEBATE



Colonoscopy at a crossroads – Which direction to take in the UK after the coronavirus pandemic?

Colonoscopy Sub-Committee of ACPGBI

- Capacity limitations
- Low yield

NEWS

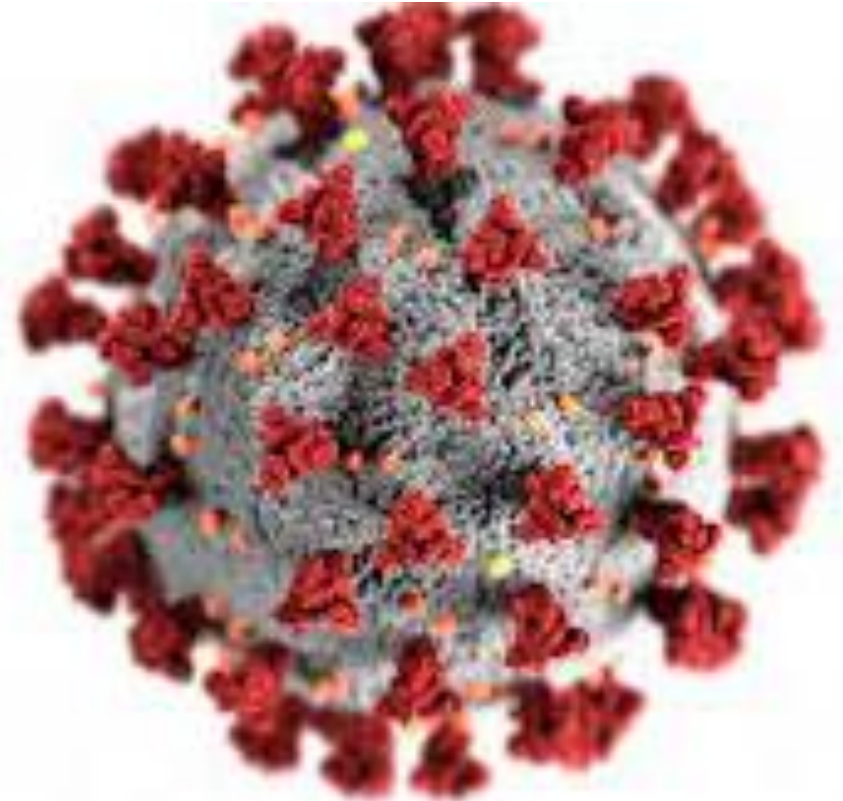


Over-screening of colorectal cancer putting patients at risk: Study

An abundance of 'low-value' colonoscopy services for bowel cancer screening is creating a bottleneck in which potentially at-risk patients are having their diagnosis delayed, new research has found.

CURRENT CHALLENGES

- ↓ 95% capacity in March 2020
- Not yet recovered....
- Did we want to return to pre-pandemic situation?
 - Low diagnostic yield in low risk patients
 - Over investigation
 - Quality issues – 1 in 15 CRC pts had a colonoscopy within preceding 3 years

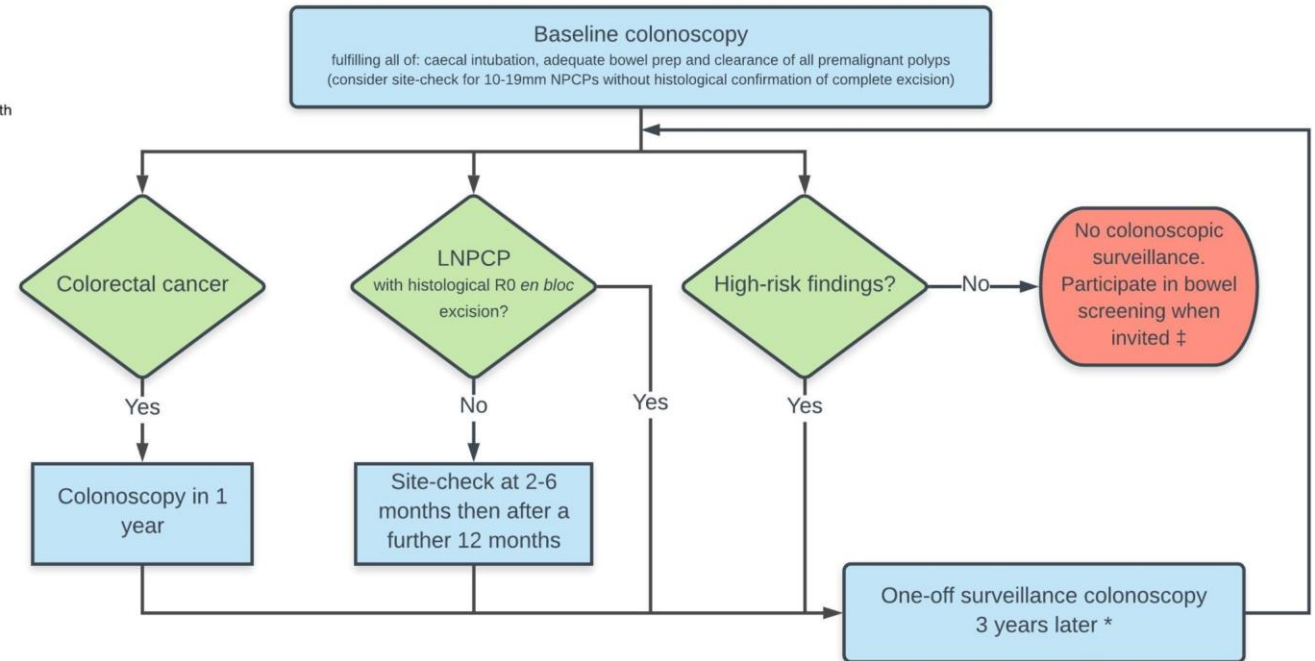


CHANGING LANDSCAPE

- New guidelines 2020
- ↓ in surveillance colonoscopies (~1/3)
- Didn't change the flow of low risk patients in...



BSG/PHE/ACPGBI Guidelines for Post-polypectomy and Post-cancer-resection Surveillance



High-risk findings

- **≥2 premalignant polyps including ≥1 advanced colorectal polyp; or**
- **≥5 premalignant polyps**

Definitions:

- Serrated polyps: umbrella term for hyperplastic polyps, sessile serrated lesions, traditional serrated adenomas and mixed polyps
- Premalignant polyps: serrated polyps (excluding diminutive [1-5mm] rectal hyperplastic polyps) and adenomatous polyps
- Advanced colorectal polyps: serrated polyp ≥10mm, serrated polyp with dysplasia, adenoma ≥10mm, adenoma with high-grade dysplasia
- (L)NPCP: (Large; ≥20mm) non-pedunculated colorectal polyp

Exceptions

* In general, we recommend no surveillance if life-expectancy <10y or if older than about 75y

‡ If patient is >10y younger than lower screening age and has polyps but no high-risk findings, consider colonoscopy at 5 or 10y

Refer to BSG hereditary CRC guidelines if:

- Family history (FH) of colorectal cancer (CRC):
 - 1 first-degree relative (FDR) diagnosed with CRC <50y, or
 - 2 FDRs diagnosed with CRC at any age
- Personal history of CRC
 - <50y
 - any age, who also has FDR with CRC at any age
- Personal history of multiple adenomas:
 - <60y with lifetime total ≥10 adenomas; or
 - ≥60y with lifetime total ≥20 adenomas, or ≥10 + FH CRC/polypsis
- Known/suspected inherited CRC predisposition syndromes including
 - Lynch Syndrome or other polyposis syndrome
 - Serrated Polyposis Syndrome:
 - ≥5 serrated polyps ≥5mm prox to rectum, with ≥2 of ≥10mm; or
 - ≥20 serrated polyps (any size) including ≥5 prox to rectum

CHANGING LANDSCAPE

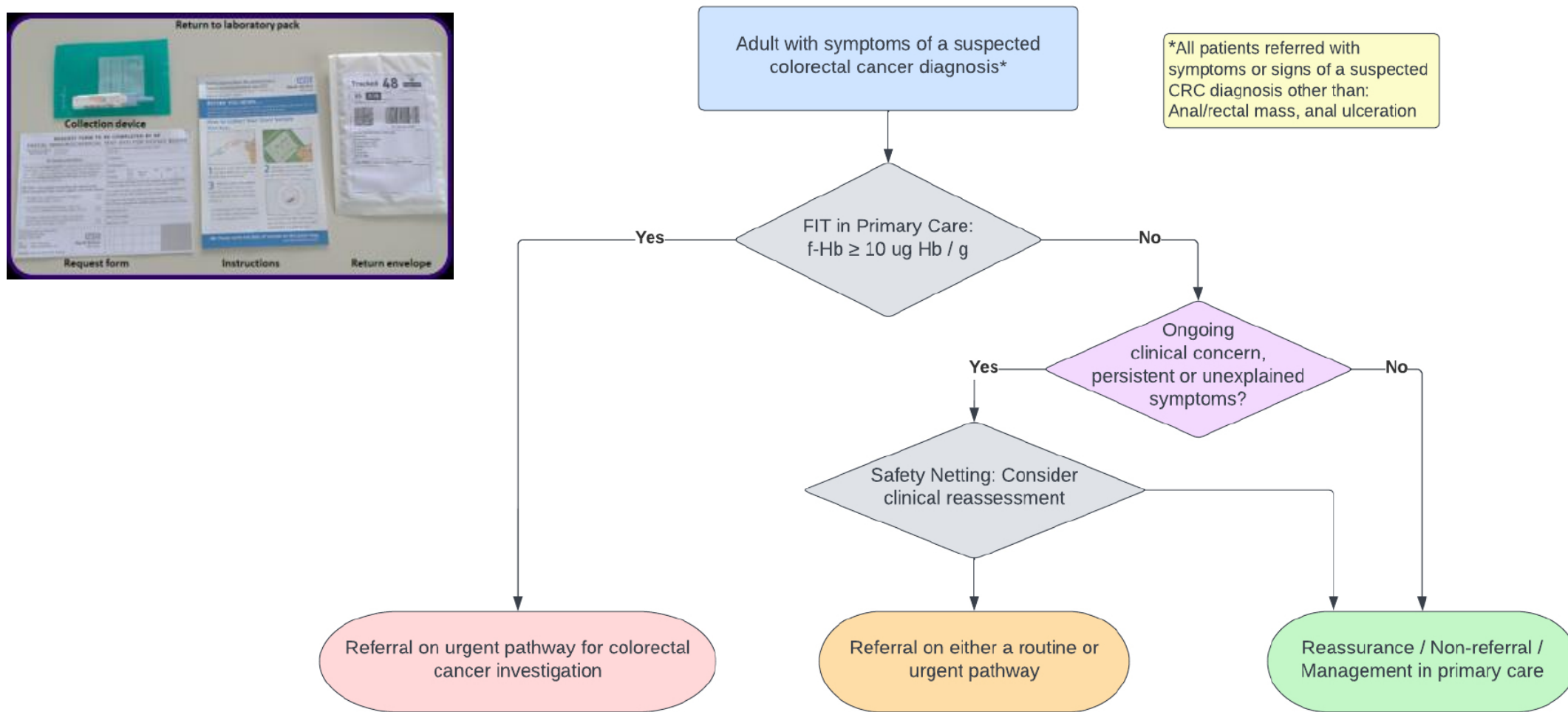


Figure 1 Pathway for FIT in patients with signs or symptoms of a suspected diagnosis of colorectal cancer (CRC), including symptoms such as those with per rectal bleeding, and signs including iron deficiency anaemia. Those with an abdominal mass should be referred urgently, but a FIT should be sent simultaneously in primary care in order to inform subsequent management. FIT, faecal immunochemical testing, fHb, faecal haemoglobin.

CHANGING LANDSCAPE

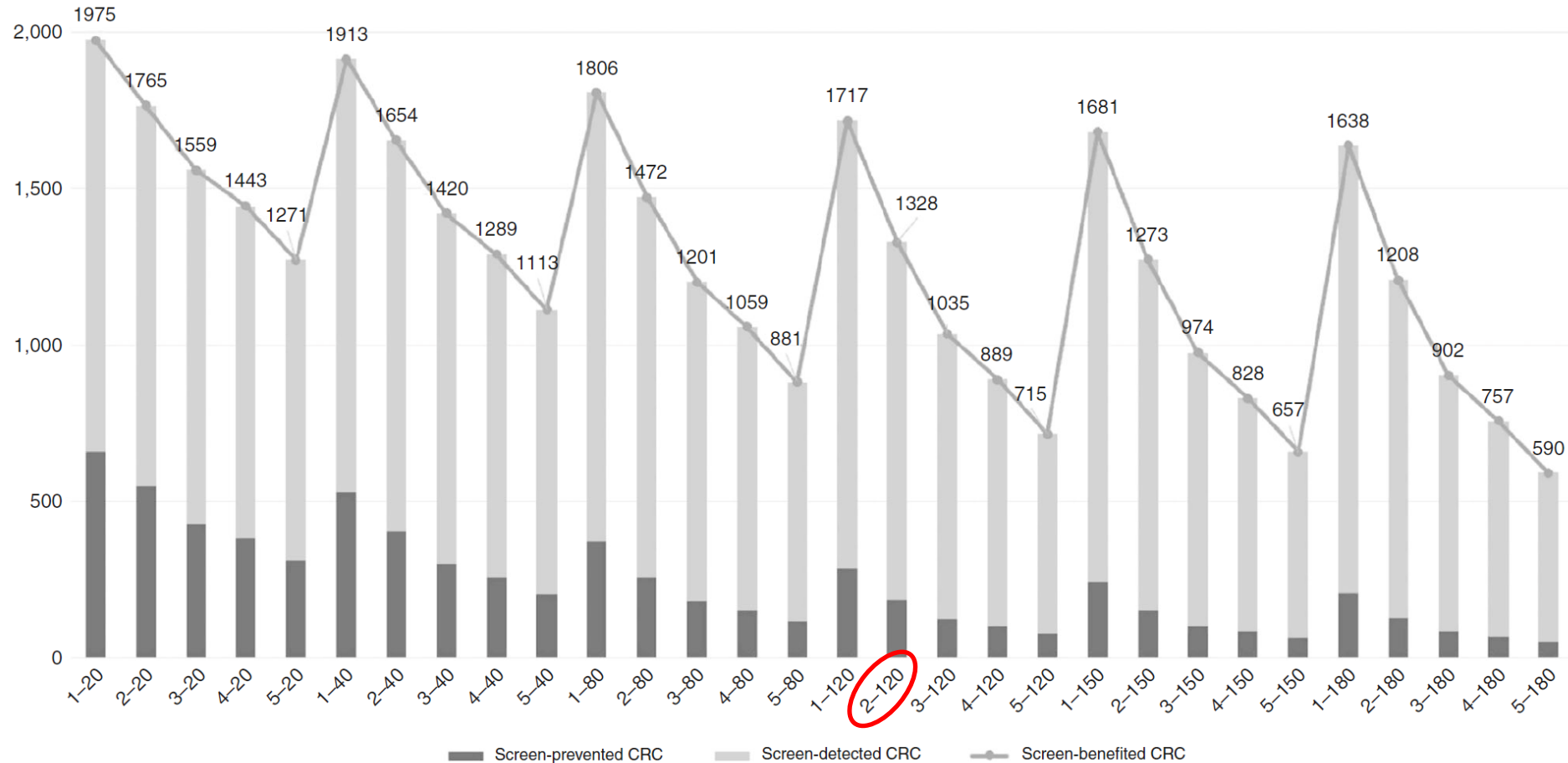


Fig. 1 Estimated number of cancers benefited from screening by interscreening interval (years) and f-Hb threshold ($\mu\text{g/g}$). The horizontal axis gives the combination of interscreening interval in years and faecal haemoglobin threshold in $\mu\text{g/g}$. The vertical axis shows the total number benefited from screening in terms of cancer, this is the point labelled atop the stacked bars for the given combination, made up of cancers prevented (darker) and detected (lighter) from screening. Take the first bar as an example, for every 100,000 individuals over 15 years, '1-20' means to screen every year with a threshold at 20 $\mu\text{g/g}$, 1975 is the estimated total number of individuals benefited from screening regarding cancer, made up by 658 from prevention and 1317 from detection.

CHANGING LANDSCAPE


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FOR DEBATE



Is the quantitative faecal immunochemical test (qFIT) ready for prime time in the US?

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"The aim of medicine is to prevent disease and prolong life, the ideal of medicine is to eliminate the need of a physician"

- William J Mayo, MD 1928

Despite increased awareness, advances in treatment and innovation in surgical approaches, colorectal cancer (CRC) is still a worldwide public health issue [1]. The cause is multifactorial, but physical inactivity, gut bacteria, unhealthy diet, being overweight or obese, smoking and alcohol use all play a role. Small decreases in overall incidence rates are overshadowed by the exponential rise in early onset CRC. In 2021, there will be an estimated 149,500 new cases and 52,980 deaths from CRC in the United States (US) alone [2]. While the majority of CRCs are diagnosed in adults aged 50 and older, 12% are now diagnosed in individuals younger than age 50; the equivalent of 49 new cases daily. Colorectal cancer is the second most common cancer and the third leading cause of cancer-related death in those less than 50 [3]. Based on current trends, by 2030 the colon cancer incidence will increase by 90% among adults 20–34 and 27% for those 35–49 years old; rectal cancer will increase 124% among adults 20–34 and 46% in people 35–49 years old [4]. These early-onset CRCs are characterized by a more advanced stage at diagnosis, worse differentiation and cell histology, and poor correlation with known CRC risk factors, making detection and treatment more difficult [3]. The US Preventive Services Task Force and American Cancer Society responded to this trend by lowering the recommended age for routine CRC screening to 45 [2,5]. If simply lowering the recommended screening age is enough to impact change remains to be determined. While there is widespread knowledge of CRC prevalence, compliance remains low with CRC screening guidelines. Only 56% of those ≥45 years of age are up to date with CRC screening [6]. Furthermore, when examining the number needed to screen (NNS), population-based screening programmes

are expensive and inefficient in addition to disparate participation rates. 450 patients would need to be screened with flexible sigmoidoscopy and 900 with FOBT to prevent one death from CRC.

The recent collection of studies on quantitative faecal immunochemical test (qFIT) use in symptomatic patients in *Colorectal Disease* [7–10] and its widespread adoption as a screening modality in Europe has compelled reflection on its use in practices for both asymptomatic and symptomatic CRC detection and screening in the US. Other healthcare structures are similarly structured.

SCREENING

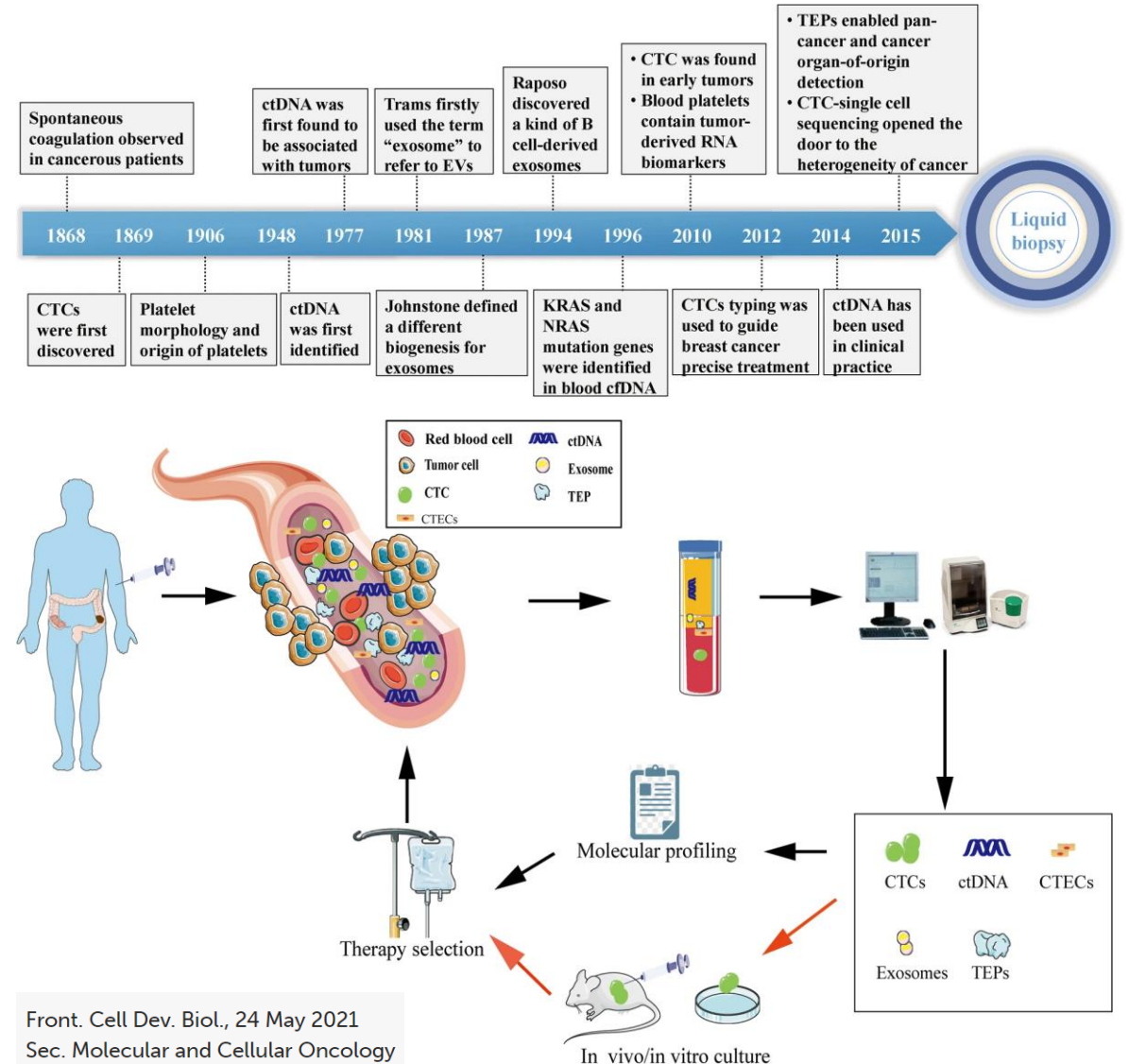
In the US, colonoscopy remains central to CRC screening efforts [11]. In fact, colonoscopy is nearly synonymous with CRC screening here. There is no national Bowel Cancer Screening Programme. The majority of Americans due for CRC screening are prompted to schedule a colonoscopy by their gastroenterologist or colorectal surgeon, and most will specifically advise patients to have a colonoscopy for screening. The reasoning given is, "Colonoscopy is the gold standard", or "Colonoscopy is both diagnostic and therapeutic". While neither of these is contested, there is no high-level evidence that supports them; the evidence on reduction in distal CRC incidence and mortality and proximal colon cancer mortality is derived from observational studies [12]. These statements also only hold true if the colonoscopy is performed by a competent operator. Even when this is done, there is an established missed adenoma rate and rate of interval cancers. There is also a 1.0%–1.2% risk of serious complications, such as severe abdominal pain, perforation and bleeding requiring transfusion - all warranting admission and possible surgical intervention - associated with each procedure [13]. So, is colonoscopy really necessary in the average risk adult? The evidence says

Modelling found using qFIT routinely and colonoscopy only if positive qFIT screening results would translate to a direct cost savings of \$1,388 per patient (when each colonoscopy is reimbursed at \$1350 per procedure) [28]. Unfortunately, the majority of operators that perform colonoscopy are not employed by a federal or integrated health system. Thus, they may be more driven to perform procedures and accrue productivity for financial compensation.

COMPETING DIAGNOSTIC TECHNOLOGIES



- Oricol mucosal sampling device
- Genomics of cells within the mucosal imprint
- DTA in progress



SHIFT FROM DIAGNOSTIC TO THERAPEUTIC

FOR DEBATE



Colonoscopy at a crossroads – Which direction to take in the UK after the coronavirus pandemic?

Colonoscopy Sub-Committee of ACPGBI

- Better stratification
- ↓ diagnostic, ↑ therapeutic

However, the consequence will be that more patients undergoing colonoscopy will need therapeutic intervention and it is essential that colonoscopists have the time and skills to deliver at least level 2 polypectomy to reduce the need for repeat therapeutic examinations and to maintain quality. Surgical colonoscopists with satisfactory Key Performance Indicators (or better, meeting aspirational KPIs) and with the necessary endoscopic therapy skills are an essential part of the workforce to deliver such a service. There is an opportunity within the surgical community to promote a faculty of endoluminal interventionalists who have both advanced endoscopic and minimally invasive skills.

EVOLVING SURGICAL TRAINING

Joint ACPGBI and the Dukes' Club statement on colonoscopy training

Dukes' Club and ACPGBI


6. That when colorectal trainees elect to enhance their colonoscopy training towards complex interventional luminal therapy, they should be supported in doing so. Endoscopic Fellowship programmes could provide opportunity for such concentrated training, perhaps combined with a parallel interest, for example transanal excisional techniques such as transanal endoscopic microsurgery or transanal minimally invasive surgery. The ACPGBI has already committed to this by offering financial support for the educational governance of these and will further contribute to fellowship selection and delivery.

EVOLVING PRACTICE PATTERNS

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ORIGINAL ARTICLE

Endoscopic management of colovesical and colovaginal fistulas with over-the-scope clips: A single-institution case series

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Abstract

Aim: Conventional surgical management of colovesical and colovaginal fistulas can be morbid and is contraindicated in many patients. Our aim in this work is to evaluate our experience in the management of colovesical and colovaginal fistulas with endoscopic over-the-scope (OTS) clips.

Method: A retrospective review of all patients who underwent attempted endoscopic OTS clip management of colovesical and colovaginal fistulas between 2013 and 2020 was performed. Preoperative risk factors, operative details and postoperative outcomes are reported.

Results: Ten patients were identified. Fistula types were: colovesical (five), rectovesical (two), colovaginal (two) and rectovaginal (one). The aetiology of the fistula was diverticular disease in seven (70%) cases and surgical complication of pelvic surgery in three (30%). The mean defect age was 157 ± 98 days, the mean defect diameter was 4.5 mm (range 2–10 mm) and the mean fistula length was 15 mm (range 2–25 mm). In nine (90%) cases, fistula identification and cannulation were performed through the nonenteric lumen of the fistula. Initial management with an OTS clip was technically successful in eight (80%) patients. Of the eight patients who underwent OTS clip placement, long-term success (mean follow-up 218 days, range 25–673 days) was achieved after initial intervention in four (50%) patients. One patient underwent serial OTS clip procedures and achieved long-term success after four interventions; three patients have not undergone a repeat procedure after initial failure.

Conclusion: Endoscopic management of colovesical and colovaginal fistulas with OTS clips offers a promising therapeutic option for patients with contraindications to conventional surgical management. Immediate technical success and long-term success rates are similar to other gastrointestinal tract applications of OTS clips.

KEYWORDS

colovaginal, colovesical, endoscopic, fistula, over the scope clips

Conference presentation: a portion of this work was presented as a poster presentation at the 2020 American Society of Colon and Rectal Surgeons (ASCRS) Annual Scientific Meeting on 8 June 2020.

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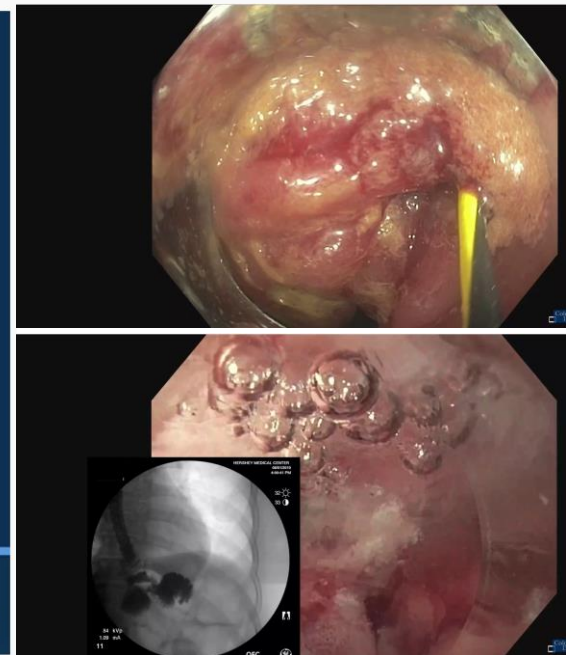
“Kissing Clips”: Management of Gastrocolic Fistulae using Ovesco clips in Gastric and Colonic Positions

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SUMMARY

- Post-Covid landscape – endoscopy is a constrained resource
- Changes to nature of surgical endoscopy – ↓ diagnostic, ↑ therapeutic
- Dedicated high level fellowship training
- Surgical input still valuable, especially for post-op complication management

Endoscopic Management of Postoperative Complications

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KEYWORDS

• Flexible endoscopy • Surgical complications • Gastrointestinal defects
• Gastrointestinal bleed • Gastrointestinal fistulae

KEY POINTS

- Surgical complications of the gastrointestinal tract are uncommon events; however, they can lead to great morbidity.
- With the advent for more and newer flexible endoscopy tools, many complications can be managed in an endoluminal fashion.
- Gastrointestinal bleeding, leaks, and fistula can be successfully addressed with flexible endoscopy.
- The authors detail technical aspects and outcomes of these procedures.

INTRODUCTION

In 2009, there were more than 6 million operations performed on the gastrointestinal (GI) tract in the United States. Over the subsequent decade, that number has continued to increase.¹ Despite continued advances of surgical technique, technology and devices as well as a revolution in perioperative care pathways, postoperative complications remain an unavoidable part of modern GI surgical practice. Traditional management of these issues often requires a return to the operating room, at times necessitating a laparotomy to safely address the pathology underlying the complication.

Advances in the last 15 years have ushered in a modern era of flexible endoscopic interventions. Although many of these interventions are designed to avoid surgical procedures, endoscopists now routinely use luminal-based, nonsurgical interventions to negate the need for repeat operations in the management of postoperative complications.² Continuous technologic advancement has expanded the toolbox

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