Introduction The reported increase in early onset colorectal cancer (EOCRC) incidence remains unexplained and is likely to be multifactorial. Understanding the molecular characteristics of EOCRC may give insights into aetiology, and inform potential treatment strategies that may be distinct from late onset disease. The aim of this analysis was to compare the molecular characteristics and survival of EOCRC with older colorectal cancer (CRC) patients in a population-representative cohort.

Methods Clinicopathological data from 661 patients with Stage II or III colon adenocarcinoma diagnosed between 2004 and 2008 in Northern Ireland were analysed. Tissue blocks were retrieved, DNA extracted and microsatellite instability (MSI) and targeted gene mutation status ascertained. Chi-squared tests were used to compare molecular characteristics of EOCRC (<50 years old) versus older age groups (50–59, 60–69, 70–79 and ≥80 years old). Cox proportional hazards models were used to calculate hazard ratios and 95% confidence intervals (CI) for survival outcomes.

Results EOCRC represented 5.8% of all Stage II and III colon cancer patients in this cohort. EOCRC patients did not have any BRAF or NRAS-mutant tumours, which was significantly different from older patients (p=0.004 and p=0.009, respectively). EOCRC tumours were more likely to have PIK3CA mutations compared to older patients (23.7% versus 15.6–19.7% in patients aged over 50 years old), and be MSI-high (33.3% versus 13.6–25.9% in patients aged over 50 years old), but these differences were not statistically significant. Compared to CRC patients aged 50–60 years old, EOCRC did not have a significantly increased risk of CRC specific death (adjusted HR 1.33; 95%CI 0.62–2.87).

Conclusions This population-representative study found that EOCRC patients had no BRAF or NRAS-mutant tumours. PIK3CA-mutant and MSI-high tumours were overrepresented in EOCRC patients but this was not statistically significant. EOCRC patients were not at an increased risk of death, however further research in larger cohorts is required to investigate if differences in molecular characteristics, for example MSI status, may have implications for survival or novel adjuvant treatment strategies.

P300 THE ROLE OF FMT IN REDUCING HOSPITAL ADMISSIONS AND LENGTH OF STAY

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Introduction Clostridium difficile infection (CDI) is the most common healthcare associated infection in the NHS with 12,275 cases reported in England in 2018/19. Recurrent Clostridium Difficile infection (rCDI) is an increasingly common problem; the recurrence rate is approximately 20% after a first episode and 45–60% after a second episode of *C difficile* infection, with mortality approaching 25% in elderly patients. Thus, rCDI is associated with significant healthcare costs and hospital admissions.[1]

Faecal microbiota transplant (FMT) is a NICE approved treatment for rCDI when treatments such as antibiotics have failed. FMT cure rates are consistently reported in the range of 80–90%.[2]

The aim of this audit was to assess the 6 week success rate of FMT procedures performed at Whiston Hospital for rCDI, and to evaluate the impact of FMT on preventing further hospital admissions.

Methods Data was collected retrospectively on all patients undergoing FMT for rCDI between April 2015 to November 2019. Data was collected from electronic case notes and the local FMT database. Success rates were defined as resolution of diarrhoea 6 weeks post FMT. The number of CDI related admissions and days in hospital prior to and post FMT were also analysed.

Results Twenty eight FMTs were performed on 20 patients (13 Females: 7 Males). FMT was performed via NG tube (19) gastroscopy (2), colonoscopy (2), NJ tube (4) and via enema (1). 6 patients (30%) required a second FMT and 1 patient required a third FMT.

The 6 week success rate after the first FMT procedure was 12/20 (60%), second FMT 19/20 (95%) and third FMT 20/20 (100%).

Within the 12 months prior to FMT the 20 patients had a median of 2 CDI related hospital admissions (range 0–13) and a median total length of stay of 29.5 days (range 0–104 days). 12-month post FMT data showed a reduction in the median number of hospital admissions (median 1, range 1–7) and in total length of stay (median 17 days, range 0–33 days).

Conclusions Our data shows that FMT is a highly effective treatment for rCDI. All patients were diarrhoea free at 6 weeks, although our 1st FMT success rates are lower than previously reported in RCTs.

FMT resulted in a reduction in the subsequent number of hospital readmissions and length of stay, thus reducing the financial burden on the NHS.

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P301 INNOCENT OR GUILTY POLYPS ? A NOVEL CONCEPT OF A SIMPLIFIED 'RESECT AND DISCARD' STRATEGY

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Introduction Optical Diagnosis (OD) based strategy (PIVI criteria) in the management of colorectal polyps has been a revelation in modern endoscopic therapy, however, studies have shown that OD in non- expert hands have not meet PIVI criteria, for both ' diagnose and leave' and 'resect and discard' strategies. We aim to create a simplified optical strategy which could accurately identify covert cancer as well as reduce the number of pathological examinations based on prevalence of cancer in 6–10 mm polyps.

Methods We analysed outcomes of all patients who underwent screening colonoscopy between January 2007 to December 2018 and were found to have polyps. Data was prospectively collected on an online endoscopy reporting system and