mortality rates were recorded and the risk factors were compared by uni- and multivariate analyses.
Results: Among the 104 patients, 54% had a NRS score >3, 39% had a WL > 5%. Postoperative complications occurred in 40% and the postoperative mortality was 14%. The rate of postoperative complications did not differ between patients with NRS < or >3. The rate of infectious complications and the mean length of stay were higher in patients with WL > 5% than in those without WL. By multivariate analysis, WL > 5% was found as the strongest predictor for infectious complications ($p < 0.05$).
Conclusion: The present study confirm that a preoperative WL > 5% is associated with an higher likelihood of complicated postoperative course. These patients are the most likely to benefit from perioperative nutrition support.

Disclosure of Interest: None declared.

P125
IMPACT OF OBESITY ON OUTCOMES IN THE MANAGEMENT OF COLORECTAL CANCER

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Rationale: Obesity especially abdominal obesity is a well established risk factor for colorectal cancer, with a more pronounced effect in males generally accepted. Obesity also negatively influences colorectal cancer outcomes. The aim of this study was to examine the impact of BMI on postoperative complications, tumour pathology, mortality, and survival in Irish colorectal cancer patients.
Methods: This was a retrospective study of colorectal cancer patients from our cancer database in St James's Hospital. All patient details, treatment, tumour pathologies and postoperative complications were recorded prospectively. Patients were excluded if they had emergency surgery, previous malignancy, or BMI not recorded.
Results: Of the 414 patients, 10% were underweight, 35% were normal weight, 37% were overweight and 18% obese ($\geqslant 30.00\,kg/m^2$). A third of patients (30%) suffered at least one post operative complication; with no difference in the incidence of major and minor complications when comparing obese to non obese. Incidence of abscesses was higher in obese patients ($p = 0.037$) but being underweight was associated with a higher rate of major complications ($p = 0.041$), sepsis ($p = 0.024$) and post operative death ($p = 0.006$). Obesity was associated with positive lymph node status ($p = 0.040$), and degree of nodal involvement ($p = 0.012$) in males only. Survival was equivalent between BMI categories and obese and non obese groups ($p = 0.469$).
Conclusion: Although obesity is a risk factor for colorectal cancer, it was not associated with adverse outcomes or survival. Weight loss is common as a presenting symptom and being underweight was associated with major complications, post operative death, but did not impact survival.

Disclosure of Interest: None Declared.

P126
IN VIVO MODULATION OF AMINO ACID PROFILE IN COLORECTAL TUMOUR BY POLYUNSATURATED FATTY ACIDS AND CHEMOTHERAPY: A FIRST OBSERVATION

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Rationale: Cancer is associated with abnormalities in protein metabolism with a higher demand for amino acids. Administration of polyunsaturated fatty acids (PUFAs) could modulate whole-body anabolic response in cancer patients. However, there is no data about the modulation of amino acid metabolism in the tumour by PUFAs. The aim of this preliminary study was to measure the amino acid levels in tumours treated with n-3 PUFAs or n-6 PUFAs and/or with the chemotherapeutic agent 5-fluorouracil (5-FU).
Methods: NMRI nude mice xenografted s.c. with the human colorectal adenocarcinoma tumour LS174T were treated for a one-week period w/o daily i.v. injections of 0.2 g/kg/day of n-3 or n-6 PUFA emulsion (Omegaven or Lipovenoes, Fresenius Kabi) and/or i.p. injections of 50 mg/kg/day 5-FU. At sacrifice, tumours were lysed to measure total amino acids ($n = 2$/group) by HPLC, and results are expressed in nmol/mg of tumour.
Results: In contrast with n-6 PUFAs, n-3 PUFAs + 5-FU treatment induced an increase of the branched-chain amino acids leucine, isoleucine, valine levels compared with n-3 PUFAs alone (respectively 0.38 ± 0.01 vs 0.25 ± 0.01; 0.17 ± 0.00 vs 0.14 ± 0.01; 0.64 ± 0.03 vs 0.045 ± 0.03). Phenylalanine (Phe) level was higher in the group n-3 + 5-FU compared with the group n-3 (0.33 ± 0.01 vs 0.16 ± 0.03) but not in the group n-6 + 5-FU (LF) compared with the group n-6 (0.22 ± 0.14 vs 0.15 ± 0.04). Citrulline (Cit) and taurine (Tau) levels were decreased in the two groups treated with 5-FU (Tau: n-6 vs n-6 + 5-FU 6.59 ± 0.5 vs 2.47 ± 1.32; n-3 vs n-3 + 5-FU 6.10 ± 3.19 vs 4.66 ± 0.53; Cit: n-6 vs n-6 + 5-FU 0.13 ± 0.02 vs 0.02 ± 0.01; n-3 vs n-3 + 5-FU 0.11 ± 0.03 vs 0.05 ± 0.01).
Conclusion: Independently of PUFA supplementation, 5-FU induced an increase of Phe level in the tumour suggesting an increase in protein turnover, and a profound decrease in Cit and Tau levels. In contrast to n-6 PUFAs, n-3 PUFAs allowed 5-FU to induce an increase in the branched chain amino acids suggesting an increase in intratumoral protein turnover.

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INSIGHTS ON BODY COMPOSITION IN CANCER PATIENTS

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Rationale: Excess body weight and body fat have been identified as risk factors for cancer. It is well known that not only excessive fat mass increases the risk of having cancer or cancer recurrence, but also the depletion of fat