IDDF2018-ABS-0204 EFFECT OF WHOLE GRAINS AND UNSATURATED FATTY ACIDS DIETARY INTERVENTION ON HEALTH IN HONG KONG OVERWEIGHT POPULATION

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10.1136/gutjnl-2018-IDDFabstracts.153

Background To determine the effect of different dietary interventions on health outcomes in the Hong Kong East Asian population.

Methods 38 overweight or obese (BMI >23 kg/m²) East Asian subjects (25 to 60 years of age, 19 males, 19 females) from Hong Kong were recruited as part of a randomised controlled clinical trial. People with major pulmonary, cardiovascular, hepatic, gastrointestinal or renal diseases, metabolic syndrome or recent antibiotic use were excluded. All subjects were randomly assigned four diet groups, 1) Diet as usual (control), 2) Unsaturated fatty acid diet (UFA), 3) Whole grain diet (WG), 4) Mixed intervention of 2nd and 3rd diets (MIX). Interventions were provided by a registered dietitian. A separate dietitian who was blinded monitored the compliance to the assigned diet type by visual assessment of food consumption. To determine the health outcomes, physical examination, blood pressure, blood glucose and serum cholesterol were assessed at the body check centre at week 0 (baseline), 1, 4 and 8. Dietary interventions were compared with controls using t-test.

Results A total of 38 subjects observed throughout the 8 weeks, 11 subjects were randomly allocated to WG group, 10 to PUFA, 8 to MIX and 7 to the control group. Across all 4 diet groups, overall compliance was 25%, with an 11% increase at week 8 compared to baseline. Compliance to dietary intervention had a favourable effect on total and LDL cholesterol levels. A negative correlation between compliance change versus total and LDL cholesterol change at week 8 compared to baseline were observed ($r=-0.4$, $r=-0.41$ respectively). Compared to controls, a significant reduction of systolic blood pressure by 8th week was observed in UFA group ($p=0.0048$), unremarkable in other groups. A trend towards significant reduction of triglycerides was observed by 8th week ($p=0.059$) in WG group compared to controls. Both MIX and WG groups showed a trend towards reduction of total cholesterol ($p=0.09$ and $p=0.05$ respectively).

Conclusions Effect of dietary intervention on health depends on the specific interventions. High unsaturated fatty acid diet has a favourable effect on reducing systolic blood pressure.

IDDF2018-ABS-0206 THE IMPACT AND EFFECTIVENESS OF IBS CLINICAL PATHWAY IN OUTPATIENT MANAGEMENT OF IRRITABLE BOWEL SYNDROME IN A TERTIARY CENTRE

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10.1136/gutjnl-2018-IDDFabstracts.154

Background Irritable bowel syndrome (IBS) is a chronic gastrointestinal disorder consisting of abdominal pain and altered

bowel habit with either diarrhoea, constipation or both which has a significant impact on patient's quality of life. To date, there have been no published studies on the efficacy of a clinical pathway in treating IBS. The IBS Clinical Pathway (CP) consists of an algorithm that delivers standardised care and prompt intervention to IBS patients. We aim to assess the effectiveness of IBS clinical pathway in improving symptoms and severity of IBS.

Methods This was a non-randomised prospective study in Universiti Kebangsaan Malaysia Medical Centre (UKMMC) from June 2017 to May 2018. We included all patients that fulfilled the diagnosis of IBS based on Rome III criteria. The patients from CP group and non-CP group had their baseline IBS severity scoring system (IVS-SSS), Euro quality of life 5-dimension 5-levels (EQ-VAS) and hospital anxiety and depression scale (HADS) score calculated at baseline and the end of the study. CP followed a strict algorithm from diagnosis consisting of dietary counselling for low FODMAP diet during each visit, close biopsychosocial assessment and those with moderate to severe HADS scores were referred to psychiatry for appropriate intervention.

Results 101 patients were recruited under CP and 84 patients for the non-CP group. At the end of the study, the CP group demonstrated a statistically significant improvement in their IBS Severity Score: 20 participants (19.8%) showed significant IBS Severity Score improvement in CP group whereas only 7 participants (8.3%) in non-CP group ($p=0.006$) demonstrated an improvement. For EQ-VAS score, both groups showed significant improvement in the level of health at the end of the study (p value<0.05). There was a significant improvement in IBS symptoms with prompt psychiatry referral in CP groups ($p=0.024$) but not in non-CP group ($p=0.171$). In relation between IBS severity improvement and low FODMAP diet, there were no significant difference in both groups ($p>0.05$).

Conclusions IBS Clinical Pathway is effective in improving IBS severity and symptoms and should be incorporated into clinical practice.

IDDF2018-ABS-0209 VENOUS THROMBOEMBOLISM IN PATIENTS WITH INFLAMMATORY BOWEL DISEASE IN CHINA: INVESTIGATIONS INTO INCIDENCE AND RISK FACTORS

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10.1136/gutjnl-2018-IDDFabstracts.155

Background Studies from the western population proved inflammatory bowel disease (IBD) a risk factor for venous thromboembolism (VTE) and thromboprophylaxis has become standard care for hospitalised IBD patients with disease flares. In Asia, lack of studies on VTE among IBD patients makes practice of thromboprophylaxis far from standardised. Our aim is to explore the incidence and risk factors for VTE among Chinese IBD patients.

Methods Retrospective analysis of IBD patients from 17 Chinese tertiary referral hospitals between 2011 and 2016 was

performed. Patients with IBD diagnosis were identified and searched for VTE diagnosis. Incidence density of VTE was calculated; a case-control study that included IBD patients with and without VTE was performed to analyse VTE related risk factors among Chinese IBD patients.

Results A total of 8459 IBD patients and 46 patients with VTE were identified, yielding an incidence of 37.18/10000 person-years. Risk of VTE increased with advanced age (RR=1.05, 95%CI=1.02–1.08) and history of bowel resection (RR=3.52, 95%CI=1.45–8.52). Severe disease flare (Crohn's disease activity index [CDAI]>450, mayo score >10), but not disease flares with less severity (CDAI >150, mayo >2), was an independent risk factor for VTE among inpatients (for Crohn's disease: OR=11.68, 95%CI=2.33–58.47, ulcerative colitis: OR=4.68, 95%CI=1.11–19.58). In addition, history of glucocorticoids use was a risk factor for patients with Crohn's disease (OR=5.01, 95%CI=1.22–21.16), whereas history of 5-aminosalicylic acid use was a protective factor for patients with ulcerative colitis (OR=0.16, 95%CI=0.04–0.65).

Conclusions The incidence of VTE among Chinese IBD patients is not lower than that from the western population. VTE related risk factors included age, severe disease flare, past history of surgery and glucocorticoids use, whereas past use of 5-aminosalicylic acid was protective against VTE for ulcerative colitis. Thromboprophylaxis should be considered for patients with these risk factors.

IDDF2018-ABS-0211

ALTERED COAGULATION IN INFLAMMATORY BOWEL DISEASE: PREDICTORS OF THE DISEASE STATUS

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10.1136/gutjnl-2018-IDDFabstracts.156

Background To evaluate the coagulation status in patients with inflammatory bowel disease (IBD) and explore the possibility of using coagulation parameters to predict the disease status and assist the diagnosis.

Methods We enrolled 987 hospitalised IBD patients and 1027 healthy controls during March 2011 to June 2016. The coagulation parameters between IBD patients and healthy controls were compared. Correlations between coagulation and disease status were evaluated. Computer-based machine learning including artificial neural network (ANN) and support vector machine (SVM), together with receiving operator curve (ROC) was used to estimate the value of coagulation parameters in the diagnosis of IBD.

Results Compared with healthy controls, IBD patients showed higher platelet count and plateletcrit, lower mean platelet volume, platelet distribution width and platelet-large cell ratio, prolonged prothrombin time and activated partial thromboplastin time, and increased fibrinogen and INR ($p<0.001$). CRP and ESR significantly correlated with hyper-coagulation (nearly all $p<0.05$). In ulcerative colitis (UC) patients, coagulation parameters demonstrated significant correlation with clinical activity and endoscopic activity. Multiple linear regression

analysis revealed that in the Crohn's disease (CD) group, patients with colon involvement displayed more obviously altered coagulation status (all $p<0.05$). Structuring lesion and perianal disease were also related with part of the parameters. In UC patients, abnormality of coagulation status was positively paralleled with disease extent. ROC analysis demonstrated that coagulation parameters were of medium predictive value for diagnosing IBD since the area under ROC was 0.748. The overall accuracy of the ANN model was 0.75 with the sensitivity of 73.3% and the specificity of 76.5% while in the SVM model, the overall accuracy was 0.744 with the sensitivity of 67.4% and the specificity of 77.0%.

Conclusions Hyper-coagulation is present in IBD patients. Disease status and coagulation are closely correlated. In CD patients, coagulation parameters are able to indicate the level of inflammatory biomarkers, the location of the lesion, disease behaviour as well as the presence of perianal disease while in UC patients, coagulation parameters are indicative of the level of inflammatory biomarkers, endoscopic activity and disease extent.

IDDF2018-ABS-0212

PANCREATICOJEJUNOSTOMY WITH INTRAOPERATIVE PANCREATIC STENTING IN WHIPPLE'S PROCEDURE – A SINGLE INSTITUTE EXPERIENCE

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10.1136/gutjnl-2018-IDDFabstracts.157

Background Pancreaticojejunal anastomotic leak is one of the dreaded complications after whipple's procedure. Many surgical modifications of pancreatico-jejunal anastomosis have been described in the literature, but none are absolutely perfect. We aim to review our recent experience of whipple's procedure with a technique of pancreatico-jejunosomy with intraoperative intrapancreatic stent placement and the postoperative procedure related morbidities and mortality.

Methods In this retrospective study, patients undergoing whipple's procedure for periampullary carcinoma and reconstructed with standard two layered pancreaticojejunostomy with pancreatic stent placement were analyzed from December 2015 to March 2018 and compared with standard technique. Preoperative characteristics of the patients as well as a postoperative pancreatic leak, its morbidity and mortality were compared.

Results During the study period, 33 patients underwent the procedure. Median preoperative bilirubin and serum protein were 4.1 mg/dl and 7.35 gm/dl. Preoperative Common bile duct stenting was done in 5 patients and 26 patients were jaundiced. Median pancreatic duct diameter was 3.2 mm. The median duration of surgery was 5 hours. There was one patient with postoperative pancreatic leak (3%) which was managed conservatively. The median postoperative hospital stay was 15 days. Five patients required ICU care postoperatively. There was no postoperative procedure-related mortality.

Conclusions Pancreaticojejunostomy with intrapancreatic stent placement is a viable option with low rate of postoperative pancreatic leak, its morbidities and mortality in cases of whipple's procedure.