Abstracts

549  Of Mice and Men: Metabolic Effects of Chronic Exercise
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Aims: To determine the effects of an exercise program on fatty liver disease and metabolite markers of cardiometabolic health.

Methods: 42 adipose tissue knock out mice fed a high-fat diet (HF2D) were randomized: 16 were administered the diet for 12 weeks. 10 mice took the HF2D for 26 weeks (late control), and 16 mice took the diet for 16 weeks and underwent exercise for 10 weeks (late exercise). For the human study, 55 males with mean age 21 ± 3 years and mean BMI 24.4 ± 2.73 kg/m² underwent an 80-day exercise programme. 10 μL plasma from mice and humans was subjected to metabolomic analysis using LC-MS/MS.

Results: We found increased circulating serotonin metabolites in both mice (late exercise vs late control) and men (p < 0.05). Intriguingly, the endocannabinoid anandamide, purported to be responsible for the “runner’s high”, was significantly increased in HF2D exercising mice (p = 0.01). Liver fat measured by total triglyceride content was significantly decrease in HF2D exercise mice (p < 0.05). Several metabolic pathways were changed by exercise in humans undergoing the exercise programme. A microbiome-derived tryptophan metabolite (p = 9.4 × 10−6) was also significantly elevated by exercise. Acetylcholine, a marker of neuromuscular fatigue, was decreased post exercise compared to baseline (p = 0.008), as was arginine (p < 0.001) – the major substrate of NO. Several plasma non-essential amino acids were also elevated in humans post exercise program.

Conclusion: Exercise reduce liver fat and reveals plasma markers of improved psychological, physiological, vascular, and metabolic health.

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550  Perioperative Management of Antiplatelets in Elective Surgery at a Tertiary Hospital
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Methods: Retrospective analysis of adults undergoing elective surgery from 01/01/2017-01/04/2018 who received antiplatelets pre-operatively. Compliance with ESC Guidelines was rated according to thrombosis and bleeding risk factors.

Results: Evaluated 182 patients, age 69 ± 12 years. Interrupting antiplatelets was compliant in 76.4%, duration of cessation was compliant in 26.4%. No difference between antiplatelet type/combinations and compliance was found. Of the 134 non-compliant patients, 73.1% had antiplatelets ceased later than advised. Aspirin cessation was closer to surgery than advised (80.3%, p = 0.027) and associated with increased bleeding (83.1%, p = 0.004). Clopidogrel monotherapy was associated with reduced bleeding (33.3%, p = 0.017). Less bleeding occurred in patients with gastro-oesophageal reflux disease: 17/26 (65%) vs 54/64 (84%) (p = 0.046). Cardiac surgery was associated with increased bleeding (89.0%, p < 0.001) despite higher compliance for interrupting or continuing antiplatelets (85.4%, p < 0.01). Thromboembolism occurred in 2 (1.1%), transfusion in 32 (17.6%), and 14 (7.7%) required rehospitalisation within 3 months.

Conclusion: There is considerable compliance with recommendations regarding interruption/continuation of antiplatelets, but widespread discordance concerning duration of antiplatelet interruption, suggesting requirements for further Guideline dissemination/education.

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553  Pre-Morbid Mobility Status and Long-Term Outcomes in Patients Aged >85 years with Non-ST-Elevation Myocardial Infarction (NSTEMI)
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Introduction: Mobility limitations are common in the elderly and contribute significantly to frailty. The impact of