patients. In both IBD and depression, there is evidence of disruptions in circulating miRNAs.
Objectives: One facet of the ongoing project titled "The brain-gut axis linking inflammatory bowel disease with anxiety and depression: the inflammation-microbiome network" (CRP/ROU21-01) involves the exploration of circulating miRNA profiles in various patient groups.
Methods: These groups encompass IBD patients with symptoms of anxiety and/or depression (IBD+A&D+), patients lacking anxiety and depression symptoms (IBD+A&D-), a cohort of individuals without IBD but experiencing depressive and anxiety symptoms (IBD-A&D+), and a control group (IBD-A&D-). Thus far, our investigation has entailed screening a comprehensive panel of 179 miRNAs in the plasma of six IBD patients and 12 non-IBD patients (CTRL) to identify a subset of highly dysregulated miRNAs. MiRNA isolation was achieved using the miRNeasy Serum/Plasma Kit, and miRNA expression levels were assessed via quantitative reverse transcription-polymerase chain reaction (qRT-PCR) utilizing the Human serum/plasma focus, MIRCURY LNA miRNA Focus PCR panel (Qiagen).
Results: Our statistical analysis revealed significant differential expression in 45 miRNAs ($p<0.05$). Specifically, we identified 29 miRNAs with elevated expression and seven miRNAs with reduced expression. Among these dysregulated miRNAs, 15 (miR-223-3p, miR-143-3p, let-7f-5p, miR-30b-5p, miR-26a-5p, let-7a-5p, miR-339-5p, let-7d-5p, miR-221-3p, miR-191-5p, let-7g-5p, miR-24-3p, miR-107, miR-26b-5p, miR-320b) were associated with depression and/or anxiety and were previously identified as dysregulated in the plasma of patients in other studies. These miRNAs will soon undergo evaluation in the plasma of IBD-A&D+ and IBD+A&D+ patients.
Conclusions: These initial findings provide us with a panel of circulating miRNAs that warrant further investigation in the aforementioned patient groups. The miRNA profile we obtained may either be unique to IBD or linked to the intricate phenotypes of IBD occurring concurrently with anxiety and depression. A more profound comprehension of these mechanisms will aid in the development of enhanced
diagnostic tools and disease monitoring strategies, as well as the exploration of innovative therapeutic approaches.

Disclosure of Interest: None Declared

Neuroimaging

O0068

Longitudinal amygdala resting state functional connectivity develops differently in adolescents with internalising disorders compared to healthy peers

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Introduction: Longitudinal neuroimaging studies focused on adolescents with internalising psychopathology (i.e. with clinical anxiety and/or depression) are scarce, even though anxiety and depression are highly prevalent mental illnesses in adolescence. Often linked to comorbidity with anxiety disorders, a large proportion of depressed adolescents displays more severe symptoms and poorer response to treatment. Previous longitudinal resting-state fMRI (RS-fMRI) studies of intrinsic functional connectivity (iFC) in depressed adolescents point to dysregulation of underlying neural networks such as the corticolimbic network, including among others the amygdala and frontal regions, which are involved in emotion processing and regulation.
Objectives: This naturalistic study investigates longitudinal changes in resting-state iFC in adolescents with internalising disorders, compared with healthy peers.
Methods: 23 treatment naïve adolescent patients with clinical depression and comorbid anxiety (INT) and 24 healthy controls (HC) participated in RS-fMRI scans at baseline and after three months. Questionnaires measuring anxiety and depression were completed at both timepoints. Imaging analyses were conducted using independent component analysis (ICA) to extract 7 networks, being the default mode, frontoparietal (bilateral), affective, salience, executive control and dorsal attention network. Additional iFC of amygdala subregions, being laterobasal (LB) and centromedial (CM), was investigated using seed-based analyses. To investigate changes over time between groups, voxelwise analyses were conducted using FSL's PALM.
Results: No significant results within ICA defined networks were found. iFC between the left LB amygdala and left frontal pole significantly increased over time in patients and decreased in HC. iFC between the right LB amygdala and right pre- and post-central gyrus also significantly increased over time in patients and decreased in HC, and was significantly associated with reduction in depressive symptoms within patients.
Conclusions: This study provides initial evidence that iFC between the laterobasal amygdala and frontal regions develops differently over time in adolescents with internalising disorders compared to healthy peers and that it is associated with reduction in depressive symptoms.

Disclosure of Interest: None Declared

O0069

Abnormal Neural Activation in Attention-Deficit/Hyperactivity Disorder: A Meta-Analysis of Functional Magnetic Resonance Imaging Studies

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