

Aims/Background To prospectively assess visuospatial memory performance in IBS, in comparison to disease controls Crohn's disease (CD) and healthy controls (HC).

Method At baseline (Visit 1) and 6 months (Visit 2), IBS patients (baseline n=39; age (M): 28 yrs; IQ:105.5), matched CD patients (baseline n=18;age (M):32 yrs; IQ:103.4), and matched HC (baseline n=40;age (M):28 yrs; IQ:108.5), were assessed using a selection of cognitive tests from the CANTAB and Stroop test. Abdominal pain severity at time of testing was reported by IBS patients on a scale ranging from 0–100.

Results At Visit 1 & 2, IBS patients displayed visuospatial memory deficits [Paired Associates Learning (PAL) test]; greater errors at the 6 pattern stage (baseline: $p<0.05$), which also approached significance across Visit 1 & 2 ($p=0.05$); greater number of trials needed to complete the PAL Visit 1 & 2 ($p<0.05$). Pain severity did not correlate with PAL performance ($p>0.05$).

Conclusion Visuospatial memory dysfunction is a stable feature of IBS. These results may inform future management of this debilitating disorder in which there is a great unmet medical need.

REFERENCES

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A PROSPECTIVE STUDY OF COGNITIVE PERFORMANCE IN IRRITABLE BOWEL SYNDROME: VISUOSPATIAL MEMORY DEFICITS AS A STABLE FEATURE

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Introduction The cognitive neurobiological model of IBS (Kennedy *et al.*, 2012), a disorder of the brain-gut axis, proposes that key pathophysiological features, such as altered hypothalamic-pituitary-adrenal (HPA) axis function, or heightened immune activity, may lead to impaired cognitive performance. Recently IBS patients were found to exhibit visuospatial memory deficits (Kennedy *et al.*, 2013). However, a prospective assessment is essential to confirm if cognitive dysfunction is a stable feature of IBS.