New research shows impact of Crohn's disease on brain function

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New research published in the UEG Journal1 has found that Crohn's disease sufferers experience slower response times than matched individuals that do not have the disease.

In a study of patients with Crohn's disease, cognitive response times were 10% slower than normal and significantly correlated with symptoms of active inflammation, including abdominal pain and fatigue. Notably, the response times in Crohn's patients were slower than those assessed in people over the legal drink drive limit in most EU countries (blood alcohol content above 0.05 g/100ml) when assessed with the same computer-based cognitive test in a similar study by the same group.

The results demonstrate the presence of mild cognitive impairment in Crohn's patients and support patients' frequent complaints of difficulties in concentration, clouding of thought and memory lapses. The study also demonstrated that Crohn's patients had a higher median depression score and a poorer rating of sleep quality, which were associated with more severe cognitive impairment.

Crohn's disease, one of the two main forms of inflammatory bowel disease (IBD) alongside ulcerative colitis, has seen a sharp increase throughout much of Europe in recent decades with higher incidence levels documented in northern and western parts of the continent2. The disease can be extremely debilitating for patients and there is no solitary cause, although it is thought to be due to a combination of genetic and environmental factors.

As well as the recognised bowel-related symptoms of Crohn's disease such as abdominal pain and diarrhoea, the condition has now also been shown to impact cognitive function. Patients frequently experience cognitive symptoms, yet these symptoms are often ignored by clinicians. Dr Daniel van Langenberg, the lead researcher behind the findings, comments, "These results reinforce the notion that Crohn's has a wide range of multi-systemic consequences with the impact of the disease affecting patients not only within but well beyond the digestive tract."

Dr van Langenberg adds, "The findings appear consistent with experiments that have shown that bowel inflammation results in an upregulation of inflammatory hippocampus activity in the brain. This, in turn, might account for the slower response times that were observed in the study."

Professor Gigi Veereman, UEG inflammatory bowel disease expert, comments "This research highlights the need for regular interventions with multi-disciplinary IBD teams to address the wide issues that are presented with Crohn's disease. This will enable a greater understanding of this complex condition and therefore improve the service and care offered to each patient."

More information: Ethnic variations in the occurrence of colonic neoplasms, Published online before print August 24, 2016, DOI: 10.1177/2050640616666942

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