Bowel disease link to blood clots

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People living with Inflammatory Bowel Disease (IBD) are known to be at high risk of blood clots when admitted to hospital during a flare-up of their disease but now new research by scientists at The University of Nottingham has shown that those who are not admitted to hospital during flare-ups are also at risk.

The two main types of IBD are Ulcerative Colitis and Crohn's Disease which affect about one in every 250 people in the UK. The research published today in the medical journal, *The Lancet,* could eventually mean new advice for GPs and patients on how to reduce the risk of developing this dangerous side-effect of bowel disease.

IBD has been known to predispose sufferers to blood clots (thromboembolism) for some time. Clots in the leg veins have a mortality rate of six per cent, rising to as much as 20 per cent if the embolism is in the lungs. Previous research has suggested that most patients who develop thromboembolism do so when their IBD is 'active', i.e. has flared up and they are three times more likely to have a blood clot than non-sufferers. This has led to the use of anti-clotting drugs

The new research at Nottingham was undertaken to find out what the blood-clotting risk is to patients with IBD who manage their flare-ups outside the hospital environment, with medical care from primary care sources like their GP. The team used the UK General Practice Research Database from November 1987 to July 2001 to compare patients with IBD with controls without the disease. They concluded that non-hospitalised sufferers with active IBD were 16 times more likely to

develop a blood clot than the general population.

In detail, the researchers analysed 13,756 patients with IBD and 71,672 matched controls, and of these, 139 patients and 165 controls developed a blood clot. Overall, patients with IBD were almost three and a half times more likely to have a blood clot than the controls. At the time of a flare-up however, this increase in risk was much more prominent (eight times). Although the absolute risk of clots was greater for patients in hospital, this relative risk at the time of a flare-up was higher during non-hospitalised periods (when patients were at 16 times the risk of their non-hospitalised controls) than during hospitalised periods (when the risk was three times that of other hospitalised patients).

Dr Matthew Grainge, Lecturer in the University's Department of Community Health Sciences said:

"Inflammatory bowel disease was associated with a roughly three-fold increase in the risk of venous thromboembolism. Compared with the general population while ambulatory, the risk of venous thromboembolism was increased about 16-fold for non-hospitalised patients with active inflammatory bowel disease. Despite the low absolute risks during non-hospitalised periods, these results suggest that active inflammatory bowel disease in ambulatory patients might be a far greater risk factor for venous thromboembolism than previously recognised."

Dr Grainge's co-researcher, Dr Tim Card concluded:

"We believe that the medical profession needs to recognise the increased risk in people with inflammatory bowel disease when assessing the likelihood of venous thromboembolism and to address the difficulty of reducing this risk in patients with a flare who are not admitted to hospital... Such strategies to achieve a reduction in risk might include

those used for inpatients such as brief courses of low-molecular weight heparin or perhaps newly available oral anticoagulants."

Commenting on the research, Dr Geoffrey C Nguyen, Mount Sinai Hospital Inflammatory Bowel Disease Centre, University of Toronto, Canada, and Johns Hopkins Division of Gastroenterology and Hepatology, Baltimore, MD, USA; and Dr Erik L Yeo, University Health Network Thrombosis Clinic, University of Toronto, Canada, said:

"We believe that the clinical efficacy and cost-effectiveness of pharmacological prophylaxis in the population with inflammatory bowel disease should be proven before it is routinely recommended during acute flares. The ascertainment of efficacy data through clinical trials might, however, be a formidable challenge given that the absolute risk of venous thromboembolism is low and a sample size of thousands of people with inflammatory bowel disease during active flares might be required.

"A pragmatic initial approach to reduction of the rates of morbidity and mortality resulting from venous thromboembolism in ambulatory patients with inflammatory bowel disease would be non-pharmacological thromboprophylaxis, including patients' education and awareness of risk and signs and symptoms of venous thromboembolism, and use of support stockings."

Provided by University of Nottingham

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