PWE-052

THE ROLE OF CYTOMEGALOVIRUS IN INFLAMMATORY BOWEL DISEASE: A SYSTEMATIC REVIEW

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Introduction Cytomegalovirus (CMV) has been widely implicated in the aetiopathogenesis, exacerbation and treatment-refractoriness of inflammatory bowel disease (IBD). In addition,

recent research showing that NOD2 and TLR2 (genes in which germline mutations give rise to increased IBD susceptibility) both act as viral pattern recognition receptors has stimulated a renewed interest in the role of this common virus in IBD.

Methods To study the evidence for the role of CMV in IBD by formal systematic review. An electronic database search of the Cochrane Library, Medline, Embase and the British Nursing Index and Archive was performed with keywords related to IBD and cytomegalovirus in addition to searches on PubMed, other online indexes and foreign language periodical databases. A hand search of reference lists of articles was also performed along with reviews of major gastroenterology journals and meeting abstracts. The papers identified were then reviewed and the level of evidence (EL) was assessed using the Scottish Intercollegiate Guidelines Network (SIGN) methodology (http://www.sign.ac.uk).

Results The initial database searches produced 264 hits and after review of their abstracts a total of 69 papers were identified; a further 77 papers were sourced from their reference lists. A total of 108 were included and comprised 3 systematic reviews, 12 case–control studies (EL 2-), 5 cohort studies (EL 2-), 20 case series (EL 3) and 68 case reports. The literature search in the only methodological robust systematic review (EL 1+) ended in 2002 with the two subsequent systematic reviews demonstrating major weaknesses (EL 1-). The remaining studies varied widely with regard to the population studied, the method of CMV detection and the clinical details presented. Analysing the case–control studies that tested biopsy or surgical specimens the overall incidence of CMV detection was 32/100 in IBD and 12/100 in controls (p=0.001). There was some consensus that CMV contributed to steroid-refractory disease and anecdotal evidence that the treatment of CMV-related relapses with antiviral therapy may be beneficial.

Conclusion The evidence surrounding the role of CMV in IBD is poor. Few studies have been of sufficient quality to provide convincing evidence of CMV as an aetiopathological factor in active IBD or that the use of antivirals should be routinely used in those in which CMV disease is suspected. A prospective randomised controlled trial of antiviral therapy for those found to have active CMV, by a variety of accurate investigations, should be considered to ascertain the benefits of treating this prevalent pathogen.

Competing interests None.

Keywords Cytomegalovirus, Inflammatory Bowel Disease.