CLOSTRIDIUM DIFFICILE IN IBD: AN UNDERDIAGNOSED CAUSE OF DISEASE RELAPSE?

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Introduction

Clostridium difficile (CDI) is the leading cause of infectious nosocomial diarrhoea in industrialised countries. Patients with IBD, both Crohn’s Disease (2-fold increase) and Ulcerative Colitis (3-fold increase) have an increased incidence of developing CDI, up to 6% in Ulcerative colitis (UC) with only slightly lower rates in Crohn’s disease (CD). Presentation of CDI, in IBD patients, can often be difficult to distinguish from a flare of disease. Furthermore, they also have worse outcomes than the general population when infected with Clostridium difficile, including length of stay and colectomy rates. Recent guidelines from the European Crohn’s and Colitis Organisation recommend routine CDI testing in symptomatic relapse.

Aims/Background

To assess both testing and detection rates of CDI in a cohort of relapsing IBD patients who require hospital admission.

Method

A single centre retrospective review of patients admitted with a relapse of IBD was undertaken. Patients were retrospectively identified using available HIPE data for the period December 2011 to December 2012. HIPE codes employed included IBD unclassified, UC and CD. Patients diagnosed with other forms of colitis including infective gastroenteritis were excluded. A review of laboratory investigations for each patient was performed to check whether a sample for Clostridium difficile testing had been sent and if sent the result was recorded. Only liquid samples were processed and the routine testing method employed was the enzyme immunoassay (EIA) test. Laboratory investigations during the hospital admission plus a 6 month window prior to admission were included in the data. In positive cases, notes were reviewed and medication history noted.

Results

In total, 50 patients were admitted with a relapse of IBD over one year. Of these, 26 (53%) were male and the mean age was 39 years (range 18–81). Within the cohort, 26 (51%) had CD, 14 (28%) had UC and 10 (20%) had IBD unclassified. Testing rates overall were high at 73% (n=36). Testing rates (85%, n=12) were highest in the UC subgroup and lowest in those with CD (56%, n=14). Only two patients (4%) were diagnosed with CDI within the entire cohort, both patients had Crohn’s colitis. Our disease specific prevalence rates were 7.6% and 0% for CD and UC, respectively. Neither patient had prior steroid exposure within 3 months of presentation and one of our two CDI positive patients was on a biologic for greater than 3 months prior to diagnosis. In total, 6 (12%) patients required a colectomy during admission. Of our CDI patients one failed to respond to antibiotic therapy and required a colectomy. Therefore, our colectomy rates were 50% and 10% for CDI positive and CDI negative groups (p<0.04), respectively. Overall, there was no difference in length of stay between groups.

Conclusion

A high clinical suspicion should be maintained for CDI in IBD patients. Our test rate of 73% is very good. The prevalence of CDI in our cohort is in keeping with other reported data, although there is a preponderance in CD. As expected there was a higher colectomy rate associated with CDI infection in this cohort of patients with significant disease requiring admission. The majority of IBD patients with relapse are treated as outpatients and it would be interesting to see if our testing rates remained high in this cohort.