AZATHIOPRINE/ALLOPURINOL CO-THERAPY IS AN EFFECTIVE TREATMENT FOR PATIENTS WITH INFLAMMATORY BOWEL DISEASE WHO EXHIBIT NO RESPONSE OR SIDE-EFFECTS TO THIOPURINES WITHOUT THE NEED FOR METABOLITE LEVEL MEASUREMENTS

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Introduction In Inflammatory bowel disease (IBD) lack of response or side effects to thiopurines (TP: azathioprine and mercaptopurine) are common (30–50%) and frequently necessitate surgery or use of biologic agents (£10 000–15 000/patient/year). It is assumed that low dose thiopurine with allopurinol co-therapy (LD TP+ALLO) requires prior measurements of metabolites. This assumption restricts the use of ALLO to a group of patients with specific metabolite profiles. The authors report a single centre outcome of using LD TP+ALLO in patients with poor response or side effects to thiopurines without prior metabolite monitoring.

Methods Consecutive IBD patients with poor response or side effects were given low dose LD TP+ALLO. The TP dose was reduced to 25–33% of the thiopurine methyl transferase adjusted dose followed by conventional blood monitoring. Patients were considered as full responders if Harvey Bradshaw Score fell to or below 3 or Truelove-Witts score was normal. In addition they should be free of biologics, steroids or calcineurin inhibitors for greater than 3 months.

Results 47 individuals with IBD (21 had Crohn’s disease) were identified. 31 were female and the median group age was 37 years. 25 patients had poor response to TP. The median follow-up period was 12 months (minimum 6 and maximum 18 months). Full response was seen in 73% of non-responders; in this group the median 6 thioguanine level was 425 and the median methylmercaptopurine level was 112. Of those with prior toxicity to thiopurines, 70% responded to the co-therapy, including two with dose dependent neutropenia. Three patients developed myelotoxicity after 12 weeks of ALLO treatment which was improved by simple dose reduction of the TP.
Conclusion This study demonstrates that LD TP+ALLO is safe, effective and well tolerated in patients with side effects or poor response to full dose TP. Careful monitoring detects myelotoxicity. Furthermore this data suggests that metabolite level measurements are not necessary prior to initiation of co-therapy, expanding its application in IBD. This approach has the potential of improving medical and economic outcomes by reducing costs from biologics, hospitalisations and surgeries.

Competing interests None.

Keywords allopurinol, azathioprine.