Results:
6-MP, regardless of duration of use. Descriptive data and outcomes were analyzed. Testing for TPMT enzyme activity occurred before the initiation of TP. The cohort was divided into those who did not have TPMT checked (CI: 1.02-3.66, p=0.041). Those who did not have TPMT checked prior to starting TP were more likely to be started on the recommended weight based dose than those who did not develop IBD.

Conclusion: The American Journal of GASTROENTEROLOGY

Methods: A previously validated cohort of newly diagnosed UC patients from the Veterans Affairs Healthcare System (Khan et al. Aliment Pharmacol Ther 2014) was evaluated as the study population. All of the patients had endoscopic evaluation at the time of diagnosis. A retrospective analysis was performed to evaluate the reasons to discontinue TP, as well as to compare the side effect profile of AZA to 6-MP, regardless of duration of use. Descriptive data and outcomes were analyzed.

Results: There were 163 newly diagnosed UC patients over the observation period from 2001 to 2011. The average age at diagnosis was 54.6 years old, 95.7% were male, and 76% were Caucasian. 58/163 (35.6%) patients were on 6MP; 105/163 (64.4%) were on AZA. The mean duration of treatment was 3.55 years (0.03-12 years). At the one-year interval during the period, 51/163 (31.8%) were still taking TP while 112/163 (67.6%) stopped treatment. 31/163 (19%) stopped within the first 3 months due to side effects. Of the 132 that continued TP for more than 3 months, 81/132 (61.4%) stopped TP with a mean duration of 3.12 years.

The most common reasons for stopping 6MP and AZA were similar. The most reasons included: unknown reasons (21), elevated LFTs (14), cytopenia (12), nausea/vomiting (10), abdominal pain (8), surgery (8) – see Table 1. The type of TP (AZA vs 6MP) was not significant for TP cessation (p=0.111) or reason for cessation of therapy (p=0.144) which included cytopenia, elevated LFTs, or pancreatitis.

Conclusion: Of the 163 that started TP, between one-third and one-half stopped taking TP due to medication side effects rather than ineffectiveness. The side effect profile was similar between AZA and 6-MP.

TPMT Assessment Prior to Initiation of Thiopurine Therapy: Results and the Impact of TPMT on Starting Dose


Introduction: Thiopurines (TP) are used for induction and maintenance of remission in patients with ulcerative colitis (UC). Our aim was to study the utilization of thiopurine methyltransferase (TPMT) testing prior to initiation of TP – a recommendation established by the FDA in 2003.

Methods: A previously validated cohort of newly diagnosed UC patients from the Veterans Affairs Healthcare System (Khan et al. Aliment Pharmacol Ther 2014) was evaluated as the study population. The records of all patients with newly diagnosed UC patients who started TP over the observation period from 2001 to 2011 were manually reviewed. A retrospective analysis was performed to evaluate if testing for TPMT enzyme activity occurred before the initiation of TP. The cohort was divided into two groups, those who started before 2003 and those who started after 2003 to coincide with the FDA recommendation regarding TPMT testing. All patients, irrespective of duration of treatment of TP, were included.

Results:
163 patients met the inclusion criteria. The average age at diagnosis was 62.1 years old, 96% were male, and 76% were Caucasian. On average, TPs were started 16.6 months after the initial diagnosis and the mean duration of treatment was 2.54 years (0.03-12 years). 90/163 (55%) never had TPMT testing done. 59/163 (36%) had normal enzyme activity; 13/163 (8%) had intermediate level enzyme activity (heterozygote). 1/163 (0.6%) was a fast metabolizer. There were no patients seen with low enzyme activity.

Conclusion: Patients are inadequately screened for TPMT activity prior to initiation of TP treatment. Although the number of individuals screened increased after the FDA recommendation, less than half the patients had TPMT enzyme activity checked. Patients screened for TPMT were more likely to be started on the recommended weight based dose than those who did not have TPMT checked.

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Heat-Treated Enterococcus durans (E. durans) Ameliorates Acute Experimental Colitis
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Introduction: The mammalian gastrointestinal tract harbors trillions of microorganisms. Immune balance in gut microbiota alters the host immune responses. It has been reported that Enterococcus species play important role in intestinal immune responses. E. durans has been reported to be high-butyrate-producing bacterial strain from human colonic flora. The aim of this study is to evaluate in vivo effects of E. durans in prevention and treatment of intestinal inflammation.

Methods: Heat-treated E. durans was kindly provided from Nichinichi Pharmaceutical Corporation Limited. Female Balb/CaI mice were used for the experiments. For induction of acute experimental colitis, mice received 4.0% DSS (Wako 5080) dissolved in sterile distilled water. Mice were inoculated with E. durans. One week after inoculation, mice were administered 4.0% DSS for 12 days. Mice were then sacrificed. The severity of colitis was assessed by histological scoring and disease activity score. The expression of cytokines in the colon was measured by real-time PCR. The proportion of regulatory T cells (Treg) among CD4+ T cells in the colon was assessed by FACS analysis. The concentration of short-chain fatty acids in feces was measured by GLPC.

Results: Body weight (BW) of mice without E. durans treatment was significantly reduced by DSS administration and was significantly attenuated in E. durans treated mice. The treatment of E. durans significantly ameliorated the disease activity score as compared to mice without E. durans treatment. Histological scoring confirmed the clinical improvement with the treatment of E. durans. The expression of inflammatory cytokines in the colon of E. durans treated mice was significantly reduced as compared to those of mice without E. durans treatment. On the other hand, IL-10 mRNA expression in the colon of E. durans treated mice was significantly enhanced as compared to the expression of mice without E. durans treatment. The proportion of Tregs among CD4+ T cells in the colon was significantly high in E. durans treated mice as compared to mice without E. durans treatment. Moreover, the concentration of short-chain fatty acids in feces was significantly high in E. durans treated mice as compared to mice without E. durans treatment.

Conclusion: These results suggest that heat-treated E. durans suppressed the development of colitis presumably due to enhancing the production of short-chain fatty acids in the colon leading to the induction of Tregs.

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Efficacy and Safety of Tacrolimus Therapy for Severe and Steroid-refractory Ulcerative Colitis: A Systematic Review and Meta-analysis
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Introduction: Approximately 25% of patients with ulcerative colitis (UC) experience a severe flare requiring intensive steroid therapy to avoid colectomy. Data of rescue therapy using tacrolimus are still limited. We performed a systematic review and meta-analysis to assess the efficacy of tacrolimus as a rescue therapy in patients with severe and steroid-refractory UC.

Methods: Electronic databases (PubMed, Google Scholar and Cochrane database) were searched for relevant studies assessing the effect of tacrolimus in severe and steroid-refractory UC. Data were pooled by using random-effects model. We assessed the short and long term clinical response to treatment and col...