

Table 2. Continued

|   |               |
|---|---------------|
| Immunomodulator (patients), n=10                            |               |
| Azathioprine  | 5             |
| Methotrexate  | 2             |
| Mercaptopurine  | 3             |
| Antibiotics (patients)                                      | 7             |
| Steroids (patients)   | 2             |
| Exclusive enteral nutrition (patients)                      | 6             |
| CRP, n=9  |               |
| Pre-treatment (at time of phlegmon)                         | 19.6, 1–160   |
| Post-treatment (2–5 months post-phlegmon)                   | 3, 1–295      |
| Surgery (patients)  | 2             |
| Surgery, days from phlegmon to surgery (median, range), n=2 | 117.5, 38–197 |
| Length of outpatient follow-up, months (median, range)      | 20, 3–74      |

**Conclusion:** 9 of 11 of our patient cohort avoided surgery after starting anti-TNF therapy for phlegmonous CD, out to a median follow up of 20 months. Our findings suggest anti-TNFs are generally well tolerated, and early commencement may be effective in preventing surgical intervention.

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Finding predictors of azathioprine-induced pancreatitis in patients with inflammatory bowel disease

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**Background:** Azathioprine (AZA)-induced pancreatitis (AIP) is a common, idiosyncratic side effect, whose incidence, clinical course and risk factors data in inflammatory bowel disease (IBD) patients are scarce. We aimed to establish the incidence, describe the clinical course and identify risk factors for AIP.

**Methods:** Retrospective study including all IBD patients on AZA between January 2013 and July 2020. Patients with AIP were considered. Demographic, clinical, biochemical and imaging data were collected.

**Results:** AIP occurred in 33 patients (7.5%; 442 patients on AZA): 81.8% had Crohn's disease, 54.5% were male, and the mean age was 35±13 years. The mean time under AZA till AIP was 25±11 days, with a mean dosage of 88±44mg. Eighteen patients (54.4%) were hospitalized, with a mean hospital stay of 4±2days. All patients had a mild course of disease which resolved with suspension of AZA, and with no complications or need of invasive interventions or complications. Smoking (p=0.02), single daily dose of AZA (p<0.001) and concomitant treatment with budesonide (p=0.001) were risk factors for AIP. In multivariate analysis, concomitant treatment with budesonide (OR: 5.3; p=0.002) and single daily dose of AZA (OR: 4.8; p=0.002) were the only predictors of AIP.

**Conclusion:** Although AIP was a relatively common side effect, it presented a mild course in all patients. Smoking, concomitant treatment with budesonide and single daily dose of AZA were risk factors for AIP. This study suggests that smoking, concomitant use of budesonide and single dose regimen of AZA should be avoided in IBD patients treated with AZA.

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Trough concentration of ustekinumab was a useful biomarker for the prediction of treatment-effects in patients with Crohn's Diseases.

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**Background:** Ustekinumab, anti-IL12/23 antibody have contributed to the good prognosis in patients with Crohn's disease (CD). However, good biomarkers for the prediction of treatment- effects of ustekinumab (UST) are not clear. We elucidated whether trough concentration of UST could predict the clinical remission and sero-negative inflammation in CD patients in clinical practice.

**Methods:** This was a single-centre prospective observational study approved by the institutional review board of our hospital. Forty CD patients treated by administration of intravenous UST 6 mg/kg and subcutaneous UST 90mg every 8 weeks were enrolled in this study. CDAI, serum CRP and plasma UST trough concentration were evaluated at every visit. All data were examined in total patients, patients with UST induction at remission state after pretreatment (Induction at remission group) and patients with UST induction at active state after pretreatment (Induction at non-remission group). Endpoints were time course changes of clinical remission rate, CDAI, CRP and UST trough concentration until week 40.

**Results:** In total, 40 participants were included in the final analysis. The mean age and disease duration of the participants were 41.3 and 11.7 years. Of the participants, 65% (26/40) were male, 25% (10/40) used thiopurine, and 30% (12/40) used steroids. TNF-failure of the patients were 65.0% (26/40). Remission rate of total patients significantly increased at week 8 (30, 60, 68, 78, 78, and 73% at every 8 weeks from baseline). Both CDAI and CRP significantly decreased from baseline at week 8. Remission rate of Induction at remission group (n=12) did not significantly decrease from baseline (100, 92, 92, 92, 92, and 83% at every 8 weeks from baseline). Remission rate of Induction at non-remission group (n=28) significantly increased until week 24 from baseline (0, 46, 57, 71, 71, and 68% at every 8 weeks from baseline). Trough concentrations of total patients at week 8, 16, 24 were 3.54, 1.57 and 1.43 µg/mL, respectively. Trough at each week was not significantly different between Induction at remission and at non-remission groups. Immunomodulator use did not affect trough concentration. Cut-off values of prediction for remission at week 8, 16, and 24 were 2.80, 1.28\* and 1.12\* µg/mL, respectively. Cut-off values of prediction for normal CRP at week 8, 16, and 24 were 3.27, 1.24\* and 1.24\* mg/mL, respectively (\*: Each factor significantly could be detected).

**Conclusion:** UST trough concentration at subcutaneous injection could predict clinical remission and normal CRP. Pretreatment did not affect UST trough concentration.

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Cycling Anti-TNF Therapy in Inflammatory Bowel Disease: Effectiveness and Durability of Switching from adalimumab to infliximab

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