Results: Pre-treatment tissue TNF and IL6 levels correlated significantly (r = 0.8, p < 0.001) and were lower in ADM remitters (n = 8) in contrast to non-remitters (4.5 vs. 8.6 pg/mg, p = 0.03; 7.1 vs. 122.5 pg/mg, p = 0.05). Pre-treatment faecal TNF was numerically lower in remitters (0.4 vs. 1.0 pg/mg, p = 0.30), but did not correlate with tissue/serum TNF (p = 0.84, p = 0.58). Although ADM did not significantly impact post-exposure serum or faecal TNF and IL6, it did reduce tissue TNF and IL6 (p = 0.02, p = 0.003), both in remitters (median –38.3%, p = 0.04; median –86.0%, p = 0.04) and non-remitters (median –59.5%, p = 0.16; median –84.5%, p = 0.03). Although TNF and IL6 changes did not correlate with ADM exposure or change in calprotectin, the decrease in faecal calprotectin significantly correlated with tissue, but not serum, ADM levels (r = 0.74, p = 0.01). ADM exposure was significantly higher in remitters as compared with non-remitters, both in serum (14.6 vs. 5.9 mg/ml, p = 0.009) and in tissue (53.1 vs. 24.1 ng/mg, p = 0.04). However, serum and tissue ADM levels correlated only moderately (r = 0.5, p = 0.1). Finally, tissue TNF/tissue ADM ratios were significantly higher in non-remitters, both considering pre (p = 0.007) and post TNF (p = 0.03). Faecal loss of ADM could be documented in a single patient only.

Conclusion: Both in tissue and serum ADM exposure was significantly higher in remitters, though tissue and serum ADM exposure did not perfectly correlate. A higher baseline tissue TNF burden was associated with non-response to ADM, and may help in the differentiation to select the appropriate biological in a given patient: no anti-TNF or intensified dosing in patients with a high baseline tissue TNF burden.

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Serum adalimumab levels measured between days 9 and 13 from drug injection can be interpreted clinically in a similar way to trough levels in patients with inflammatory bowel disease

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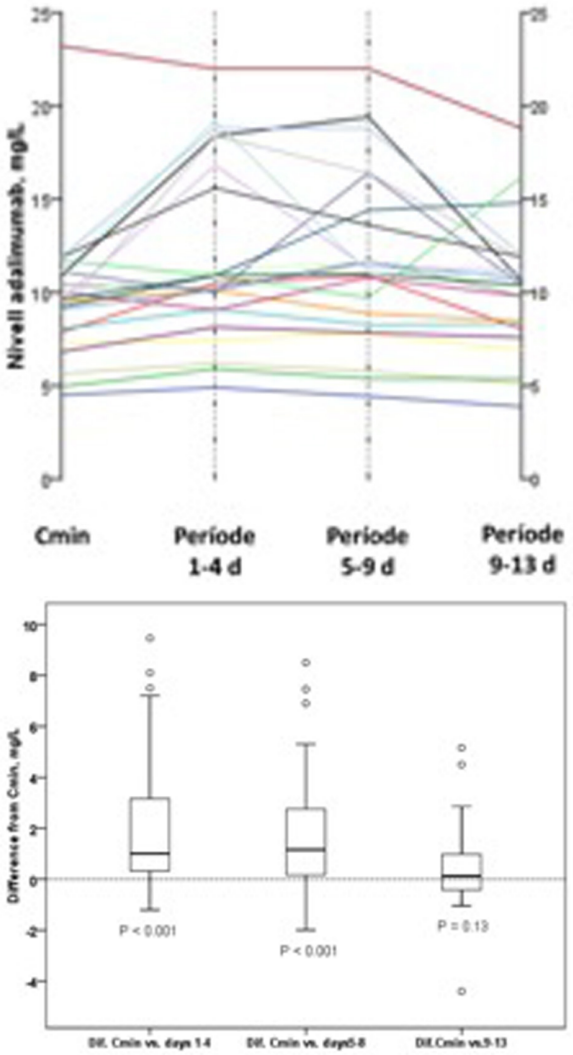
Background: AntiTNF therapeutic drug monitoring is currently performed at trough, immediately before drug administration. However, in clinical practice when subcutaneous medications are used, blood extractions often do not coincide with that moment. The aim of this study was to know if adalimumab levels measured between injections are sufficiently similar to trough levels to be used in clinical practice in a similar way.

Methods: 295 adalimumab level determinations performed at different time points of 99 injection cycles in 55 patients with inflammatory bowel disease (IBD) were included in the study. 51 patients received 40mg every 2 weeks and 4 patients received 80mg every 2 weeks.

Results: Median adalimumab levels (IQR) at trough, between days 1–4, 5–8 and 9–13 were 10.6 (6–12), 12.3 (7–18), 13 (7–19) and 10.8 (8–12), respectively. The median differences between trough level and days 1–4, 5–8 and 9–13 were 1.7 (IC 95% 1–2.3) (p < 0.001), 2.3 (IC 95% 1.5–3.1) (p < 0.001), 0.6 (IC 95% –0.2–1.3) (p = 0.13), respectively.



Conclusion: Adalimumab levels between days 9 and 13 from drug injection are very similar to trough level and could be interpreted clinically at the same way. Adalimumab levels between days 1 and 8 are significantly higher, although, differences are small.

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Development of quantitative ultrasonographic activity score in ileal Crohn's disease

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Background: Intestinal ultrasound (IUS) is as an accurate bedside tool for monitoring Crohn's disease (CD). However, there is no validated quantitative ultrasonographic score for evaluation of the activity of intestinal inflammation in CD. Such a score may facilitate the use of IUS-based monitoring in clinical practice and in clinical trials in CD. For magnetic resonance enterography (MRE), the