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Letter to the Editor

Switching it up—How to Prevent Changing Lanes in Inflammatory Bowel Disease Therapies

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Dear Editor,

Switching medical therapies in inflammatory bowel disease (IBD) is common and a paucity of data exists regarding the optimal switch strategy.[1-3] Failure of therapy regularly occurs by primary or secondary loss of response.[4]

We describe findings from a review of IBD patients over 4 years who underwent a switch of therapy (biologic/small molecule therapy). The objective was to identify key predictor variables to promote personalized therapy.

A prospectively maintained database of 141 patients was reviewed for patient demographics, treatment/disease history, biomarkers, and endoscopy results. De-identified information was extracted.

A treatment switch occurred in 39/141 patients. About 53.9% (N = 21) had Crohn's disease (CD); the mean age was 42.8 years. The mean duration of disease from diagnosis to switch was 78 months. Pancolitis was present in 82% (N = 14/17) of ulcerative colitis (UC) patients.

Of the CD patients, 43% (N = 9/21) had undergone surgery prior to the therapy switch. The most common first biologic was adalimumab 46% (N = 18); the most common switch was to Infliximab (IFX) (36%, N = 14). Primary loss of response (LOR) occurred in 28% (N = 11); secondary LOR in 44% (N = 17). The mean CRP was 13.68 mg/L (95% CI: 7.28, 20.09); mean fecal calprotectin was 874 µg/g (95% CI: 418, 1329). Endoscopic evaluation included mean mayo score of 1.88 (95% CI: 1.37, 2.39) and mean Simple Endoscopy Score for Crohn's disease (SES-CD) score of 5.79 (95% CI: 3.24, 8.33).

Median IFX level was 0.8 µg/mL (IQR 0.4, 9.7), 37.5% (N = 6/16) on IFX developed anti-drug antibodies (ADAs). Median adalimumab level was 5.2 µg/mL (IQR 1.4, 13.5) and 11% (N = 2/18) developed ADAs. A significant negative correlation existed between faecal calprotectin (FCP) and IFX level (Spearman's rank correlation: −0.822, $P = .012$).

A medication review found that 39% (N = 15) were on an immunomodulator; no significant association was observed between immunomodulators and primary/secondary LOR (P-value = .67 and $P = .63$). In total, 28% (N = 11) were admitted with an IBD flare in the first year post treatment switch, 13% (N = 5) subsequently underwent surgery and 21% (N = 8) went on to switch to a third biologic.

In conclusion, the most common switch was within the anti-tumor necrosis factor class and biomarkers were raised at the time of the switch. A significant number of patients were admitted in the year post switch with a flare. Secondary LOR was more common. Raised biomarkers, pancolitis in UC, and previous surgery in CD were common predictor variables in patients who switched therapy; consideration for early escalation of therapy should be considered in these patients.

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