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**PREDICTORS OF SUSTAINED RESPONSE TO INFLIXIMAB IN PATIENTS WITH CROHN'S DISEASE: A SINGLE COHORT STUDY**

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**INTRODUCTION/OBJECTIVES:**

A significant proportion of Crohn's disease (CD) patients lose the initial good response to infliximab (IFX) over the time and the need for predictors of long-term IFX outcome is still present.

**AIMS & Methods:**

The aim of the study was to assess retrospectively the long-term outcome of IFX therapy in CD patients and to identify predictors of sustained response to IFX. Consecutive CD patients treated with IFX between October 2007 and March 2010 who were indicated to scheduled maintenance therapy after successful 3 dose induction and in whom blood samples taken at start of maintenance regime (prior to 4th or 5th infusion) were available in blood bank, were included. Sustained response to IFX was defined as the absence of treatment failure due to loss of response or drug intolerance and no need for surgery, new introduction of immunomodulators, corticosteroids or their dose increase during IFX therapy. Kaplan-Meier curves with log-rank test were used to assess the impact of IFX trough levels (cutoff 3µg/ml for therapeutic level), concomitant therapy, indication, previous surgery and disease duration on sustained response to IFX. IFX trough levels were measured by standardized ELISA method (*Matriks Biotek*).

**RESULTS:**

A total of 83 IFX courses were given to 78 CD patients, 42 (54%) females with a median (range) age 31 years (17-62) and median disease duration 59 months (1-390). IFX was indicated for luminal and perianal disease (+/- luminal) in 81% and 19% of cases, respectively. After a median follow-up of 18 months (7-30) sustained clinical response to IFX was observed in 53 (64%) cases with the survival probability of 72% (±5%) at 12 months, 63% (±6%) at 18 months and 52% (±8%) at 24 months. IFX trough levels >3 µg/ml and concomitant immunosuppressive therapy with azathioprine/6-mercaptopurine were identified as predictors of sustained clinical benefit (p=0.003 and p=0.008). In contrast, corticosteroids at IFX start were associated with a risk of treatment failure (p=0.021). No impact of disease duration, indication and previous bowel surgery was observed.

**CONCLUSION:**

Sustained response to IFX was observed in about two thirds of CD patients. Therapeutic IFX levels at start of maintenance regime and concomitant immunosuppressive therapy were associated with sustained clinical benefit, whereas need for corticosteroids at IFX initiation increased the risk of IFX failure.