P507
Clinical role, optimal timing and frequency of measurement of serum infliximab levels and anti-infliximab antibody titres in patients with inflammatory bowel disease

R. Bor1, K. Farkas1, A. Bálint1, A. Milassin1, M. Rutka1, M. Matuz2, F. Nagy2, A. Fábián1, Z. Szepes1, T. Molnar1
1University of Szeged, First Department of Medicine, Szeged, Hungary, 2University of Szeged, Faculty of Pharmacy, Szeged, Hungary

Background: The introduction of biological treatment has made a major breakthrough in the management of inflammatory bowel disease (IBD). However, a substantial number of patients show only partial response, and, in approximately 40% of initially responders, it loses its effect. The cessation of therapy or the switching to another biological drug currently depends mainly on the clinical judgement. Serum infliximab (IFX) and anti-infliximab antibody (ATI) levels are objective parameters that may have a great role in the therapeutic decisions, but the optimal timing and frequency of their measurements are still not clearly defined.

Methods: Our aim was to assess the optimal timing and frequency of sampling for measurement of serum IFX and ATI levels during biological therapy. In total, 48 IBD patients receiving maintenance IFX therapy were prospectively enrolled: 20 patients were in complete remission (responder group), and 28 patients showed inadequate response including partial and loss of response or the need for dose escalation. Blood samples were collected before and 2 and 6 weeks after the administration of IFX. We examined the correlation between these parameters and the present clinical and the long-term response.

Results: Our results confirmed that the expression of ATI in the circulation is transient. Using the 3-points measurements, ATI expression showed significant difference between the responder and inadequate responder group (5.0% vs 35.7%; p = 0.001); however, single sampling of the ATI was insufficient for predicting therapeutic response. In the inadequate responder group ATI expression were detected in 10 cases; however, 4 patients showed appropriate long-term response. The mean value of week 0 serum IFX levels were significantly higher in the responder group (3.11 ± 1.11 vs 1.19 ± 1.11; p < 0.001) compared with the inadequate responders without further difference on the second and sixth week. In addition, 70.8% of patients could have been categorised correctly based on the cut-off value of serum IFX level of 2.281 µg/ml at week 0. On the long-term follow-up, 4 patients in the inadequate responder group with initially low serum IFX level responded. However, 2 patients in the inadequate responder group with high serum IFX level lost response on the follow-up.

Conclusions: Our results suggest that the simultaneous measurement of serum IFX levels and ATI titres not only at week 0 but also at week 2 and week 6 after the administration, significantly increase the diagnostic accuracy for the therapeutic decision in uncertainly responded patients and can serve as a highly precise tool for the evaluation of therapeutic response in the questionable situations.

P508
Pregnancy outcomes in patients with inflammatory bowel disease experiencing flare ups during foetal development

Y. Yokoyama1, H. Tanaka2, T. Miyazaki1, T. Sato1, M. Kawai1, Y. Kita1, K. Kamikozuru1, M. Imuro1, N. Hida1, S. Nakamura1
1Hyogo College of Medicine, Department of Obstetrics and Gynaecology, Nishinomiya, Japan, 2Hyogo College of Medicine, Department of Internal Medicine, Nishinomiya, Japan

Background: Inflammatory bowel disease (IBD) is a chronic relapsing and remitting health disorder with morbidities that impair function and quality of life. Further, IBD is frequently diagnosed at the childbearing age, and given that the patients require lifelong medication, it is essential to monitor and manage disease activity to ensure normal pregnancy outcome. This investigation was to better understand pregnancy outcomes in patients who experience IBD flare ups during foetal development and may require medical intervention.

Methods: Between January 2011 and November 2015, 38 pregnant patients with IBD who had been treated at our hospital were reviewed in a retrospective setting. Further, 16 of the 38 patients had Crohn's disease (CD) and 22 had ulcerative colitis (UC). In the CD cases, active disease was defined as CD activity index (CDAI) ≥ 150, whereas in the UC cases, active disease was defined as Lichtiger's clinical activity index (CAI) > 5. The pregnancy and neonatal complications we factored in our investigations included preterm birth (< 37 weeks), the need for caesarean section, low birth weight (< 2500g) and congenital abnormalities.

Results: In total, 40 pregnancy outcomes in the 38 patients were reported and available for review. The mean age was 38.6 ± 9.4 years in the CD group and 32.4 ± 5.5 years in the UC group. In most patients, IBD was inactive before pregnancy (n = 30; 75%). The most common treatment interventions in CD patients included elemental diet (n = 9) and anti-tumour necrosis factor biologics (n = 10), whereas mesalamine was the most common medication in UC patients (n = 21). The flare-up rate during pregnancy was higher in the UC patients (56.5%) as compared with 29.4% in the CD group. Most patients relapsed in the first pregnancy trimester and puerperal period. The rates of preterm birth (10%), low birth weight (25%), and caesarean section (30%) were not strikingly different from the rates in the general, non-IBD population (n = 394), 28.4%, 32.3%, and 46.4% respectively, except congenital abnormality, which was 5% vs 0.2% in the non-IBD population.

Conclusions: This retrospective investigation revealed that IBD flare ups had occurred more frequently in the first pregnancy trimester period as compared with other periods. Further, flare up rate was higher in UC patients than in CD patients, but this outcome is based on small cohorts of patients. Accordingly, IBD patients should be diligently monitored in the first pregnancy trimester. Studies from other territories have reported that IBD patients with active disease have an increased risk of neonatal and pregnancy complications. In this study, except congenital abnormality, the rates of other complications in IBD patients were not different from a non-IBD population.

P509
What is the effect of inflammatory bowel disease on sedation rates at colonoscopy?

M. Walshe*, C. Moran, G. Horgan, G. Cullen, H. Mukahy, G. Doherty
St Vincent’s University Hospital, Department of Gastroenterology and Centre for Colorectal Disease, Dublin, Ireland

Background: Full colonoscopy is used to assess disease extent and activity in inflammatory bowel disease (IBD). There has been very little study on sedation requirements of IBD patients at colonoscopy. The aims of our study were as follows: