Biological Therapy and Postoperative Complications

Date of Search: 09/12/2016
Sources Searched: Medline, Embase, DynaMed, NHS Evidence

Summary:

- Treatment with Infliximab, Etanercept and Adalimumab should be withheld for 2 to 4 weeks prior to major surgical procedures. Treatment may be restarted postoperatively if there is no evidence of infection and once wound healing is satisfactory (information provided by the drug companies).

  Source: ***Update on the British Society for Rheumatology guidelines for prescribing TNFα blockers in adults with rheumatoid arthritis*** **(2005)**
  http://rheumatology.oxfordjournals.org/content/44/2/157.long

- Consideration should be given to stopping anti-TNF in a woman who becomes pregnant on treatment but continuation of anti-TNF therapy could be considered if the risks of stopping treatment are perceived to be high.
- In RA patients on anti-TNF, the potential benefit of preventing post-operative infections by stopping treatment (different surgical procedures pose different risks of infection and wound healing) should be balanced against the risk of a peri-operative flare in RA activity.
- If anti-TNF is to be stopped prior to surgery, consideration should be given to stopping at a time 3–5× the half-life for the relevant drug before surgery.
- Anti-TNF should not be restarted after surgery until there is good wound healing and no evidence of infection.

  Source: ***BSR and BHPR rheumatoid arthritis guidelines on safety of anti-TNF therapies*** (2010) http://rheumatology.oxfordjournals.org/content/49/11/2217.long

Biological Therapy and Postoperative Complications (Pregnancy)

The Toronto Consensus Statements for the Management of Inflammatory Bowel Disease in Pregnancy

Author(s): Nguyen G.C.; Maxwell C.; Seow C.H.; Leung Y.; Huang V.; Jones J.; Leontiadis G.I.; Tse F.; Mahadevan U.; Van Der Woude C.J.

Source: Gastroenterology; Mar 2016; vol. 150 (no. 3); p. 734

Publication Date: Mar 2016

Fulltext:

The management of inflammatory bowel disease (IBD) poses a particular challenge during pregnancy because the health of both the mother and the fetus must be considered. Methods A systematic literature search identified studies on the management of IBD during pregnancy. The quality of evidence and strength of recommendations were rated using the Grading of Recommendation Assessment, Development and Evaluation (GRADE) approach. Results Consensus was reached on 29 of the 30 recommendations considered. Preconception counseling and access to specialist care are paramount in optimizing disease management. In general, women on 5-ASA, thiopurine, or anti-tumor necrosis factor (TNF) monotherapy for maintenance should continue therapy throughout pregnancy. Discontinuation of anti-TNF therapy or switching from combination therapy to monotherapy may be considered in very select low-risk patients. Women who have a mild to moderate disease flare while on optimized 5-ASA or thiopurine therapy should be managed with systemic corticosteroid or anti-TNF therapy, and those with a corticosteroid-resistant flare should start anti-TNF therapy. Endoscopy or urgent surgery should not be delayed during pregnancy if indicated. Decisions regarding cesarean delivery should be based on obstetric considerations and not the diagnosis of IBD alone, with the exception of women with active perianal Crohn's disease. With the exception of methotrexate, the use of medications for IBD should not influence the decision to breast-feed and vice versa. Live vaccinations are not recommended within the first 6 months of life in the offspring of women who were on anti-TNF therapy during pregnancy. Conclusions Optimal management of IBD before and during pregnancy is essential to achieving favorable maternal and neonatal outcomes.

Database: EMBASE

Pregnancy and inflammatory bowel disease: What to do with the medication?

Author(s): Bell S.

Source: Medicine Today; Aug 2016; vol. 17 (no. 8); p. 73-75

Publication Date: Aug 2016

Database: EMBASE

Management of Inflammatory Bowel Disease During Pregnancy

Author(s): Bar-Gil Shitrit A.; Ben Ya'acov A.; Goldin E.; Grisaru-Granovsky S.

Source: Digestive Diseases and Sciences; Aug 2016; vol. 61 (no. 8); p. 2194-2204

Publication Date: Aug 2016

Available in full text at Digestive Diseases and Sciences - from Springer Link Journals

Abstract: Inflammatory bowel disease (IBD) usually affects women during their reproductive years and many concerns arise among these young patients. Pre-pregnancy consultation with a multi-disciplinary team is very important. The team should make patients aware of the critical importance of ensuring that conception occurs during a period of disease remission. Conception during an IBD flare-up results in disease activity or even exacerbates disease in two-thirds of women. Exacerbation of the disease is associated with increased frequency of maternal and fetal complications. Drug therapy constitutes a considerable source of patient anxiety but most drugs used for treating IBD are considered safe. Therefore, continuing pharmacological therapy during pregnancy is necessary to maintain disease control. Optimization of pre-conception nutritional status and smoking cessation are also emphasized. The general guideline for most patients, except for active perianal disease patients, is to aim for vaginal delivery in the absence of obstetric contraindications. Consistent, ongoing follow-up, as detailed in this review, should allay the anxieties and fears surrounding continuing immunosuppressive drugs during pregnancy, allowing each patient to attain the optimal conditions for achieving her goal of holding a healthy baby.

Database: EMBASE

Prospectively-followed pregnancies in patients with inflammatory arthritis taking biological drugs: An Italian multicentre study

Author(s): Bazzani C.; Scrivo R.; Andreoli L.; Gorla R.; Tincani A.; Valesini G.; Lojacono A.; Baldissera E.; Canti V.; Sabbadini M.G.; Biggioggero M.; Gerosa M.; Pontikaki I.; Meroni P.; Ramoni V.; Caporali R.; Montecucco C.; Trespidi L.; Zatti S.; Iannone F.; Motta M.

Source: Clinical and Experimental Rheumatology; 2015; vol. 33 (no. 5); p. 688-693

Publication Date: 2015

Abstract: Objective: Information on new drugs does not include their possible effects on pregnancy because pregnant women are excluded from clinical trials. Although not classified as teratogenic in animals, limited data is available on biological anti-rheumatic agents and their safety in human pregnancy. The aim of the study is to evaluate the safety of biological drugs in pregnant patients with chronic arthritis. Methods: Pregnancy outcome and maternal disease variations were prospectively followed in six Italian Rheumatology Centres. Patients exposed to biological agents during the periconceptional period or during pregnancy were included in the study. The occurrence of congenital malformations as well as the obstetric and neonatal outcomes were assessed. Results: Between 1999 and 2013 we identified 79 exposed pregnancies in 67 women affected by different rheumatic diseases with peripheral chronic arthritis. At the time of the start of pregnancy, 56 patients were taking etanercept, 13 adalimumab, 3 infliximab, 2 each certolizumab-pegol and

rituximab, 1 each golimumab, anakinra and abatacept. Biological treatment was stopped after a mean of 41 days since documented pregnancy. Live births were reported in 66% of pregnancies. The rate of spontaneous pregnancy loss was 20%. Only one congenital malformation was reported. Conclusion: TNF-alpha inhibitors can be considered safe in the periconception period, representing a possible therapeutic choice also in young women affected by an aggressive form of chronic arthritis and hoping for a pregnancy. Reports of exposure during 2nd/3rd trimester are still limited and suggest caution. Experience with abatacept, tocilizumab, anakinra and rituximab in pregnancy is insufficient.

Database: EMBASE

Pregnancies in patients with long-standing rheumatoid arthritis and biologic dmard treatment: Course of disease during pregnancy and pregnancy outcomes

Author(s): Strangfeld A.; Pattloch D.; Zink A.; Spilka M.; Manger B.; Krummel-Lorenz B.; Grasler A.; Listing J.

Source: Arthritis and Rheumatology; Oct 2015; vol. 67

Publication Date: Oct 2015

Abstract: Background/Purpose: The assumption of spontaneous remission among pregnant women with rheumatoid arthritis (RA) is common. Nevertheless, prospectively collected data describing the course of disease activity during pregnancies in women with long-standing severe RA are rare. Further, observational data suggest that biologic disease modifying anti-rheumatic drugs (bDMARDs) can be safely used until conception but the impact of bDMARD treatment during pregnancy is unclear. We aimed to study pregnancy outcomes and courses of disease activity in women with bDMARD use prior to conception. Methods: We investigated all pregnancies and their outcomes that were reported to the German biologics register RABBIT until end of 2014. Pregnancies were stratified by treatment in A) biologic-naive, B) bDMARD stopped before or C) bDMARD exposed at time of conception. In a subgroup of patients with pregnancies reported until 2011, additional interviews with a focus on the course of disease activity and treatment during pregnancy were conducted. Descriptive statistics were applied to study associations of pregnancy outcomes, disease activity and treatment. Results: In 1,981 female RA patients < 45 years, 106 pregnancies in 88 patients were reported. At time of conception 57 pregnancies were exposed to bDMARDs (C) (29x etanercept, 11x adalimumab, 5x tocilizumab, 4x certolizumab pegol, 3x rituximab, 3x abatacept, 1x infliximab, and 1x golimumab), 11 were biologic naive (A) and 38 had received their last bDMARD infusion or injection at least 4 weeks (rituximab 6 months) before conception (B) (12x etanercept, 9x adalimumab, 2x tocilizumab, 2x infliximab, 13x rituximab). Only 43% of the women being in remission prior to pregnancy remained in remission. From 49 women not in remission prior to conception only 7 (14%) reached remission during pregnancy. In all pregnancies of group C bDMARD treatment was stopped after awareness of pregnancy. In 13 of those (23%) bDMARDs had to be re-started during pregnancy due to high disease activity. No adverse influence of this treatment decision on the childs' health or pregnancy course was observed. The rates of spontaneous abortions were not significantly different between treatment regimens (A: 0, B:13%, C:19%) and in range of general population rates. Induced abortions were reported in 4 out of 106 pregnancies (one due to trisomia 21 with cardiac defect in a 38 year old woman). Among all live births one major malformation (anal atresia) was detected in a child born to a mother exposed to bDMARDs until 4 weeks prior to conception (group B). Ten premature births occurred: one in a biologic naive woman, and 4 in groups B and C, respectively. In those women disease activity during pregnancy was considerably higher compared to women with mature children. Conclusion: Within our cohort observing women with long-standing severe RA, we could not confirm the assumption of

spontaneous remission during pregnancy. A considerable proportion of women experienced ongoing or worsening disease activity or flares during pregnancy. We confirmed previous reports and found no increased risk of major malformations or other harmful consequences in patients exposed to bDMARDs at time of conception.

Database: EMBASE

Pregnancy and anti-TNFalpha drugs: Experience of four centres

Author(s): Hoxha A.; Calligaro A.; Favaro M.; Del Ross T.; Ramonda R.; Raffeiner B.; Ruffatti A.; Punzi L.; Di Poi E.; Peccatori S.; Grava C.

Source: Annals of the Rheumatic Diseases; Jun 2015; vol. 74 ; p. 1030-1031

Publication Date: Jun 2015

Abstract: Background: The introduction of biologic therapies has significantly improved the outcome of inflammatory rheumatic diseases. As most of these diseases affect women and men in childbearing age there is concern about safety of biologic drugs during reproduction and pregnancy. Objectives: To evaluate the effects of anti-TNFalpha agents on pregnancy and foetal outcome. Methods: We conducted a retrospective multicentre study of 24 women and 2 men with rheumatoid arthritis (RA), ankylosing spondylitis (AS) and psoriatic arthritis (PsA), respectively. They were treated with anti-TNFalpha agents prior to conception or until conception/during pregnancy. Data were collected from four Centres (Belluno, Padua, Trento and Udine). A 28-question chart abstraction form was filled by the treating rheumatologist. The primary outcome was the occurrence of congenital malformations. Secondary outcomes were the rate of premature birth (defined as <37 weeks of gestation), small for gestational age (defined as <10th percentile) and the occurrence of vaccine complications. Results: Until to 31st December 2014, a total of 32 pregnancies were registered, including one twin pregnancy; 5 women had multiple pregnancies. Twentyfour/ 32 (75%) pregnancies were exposed to anti-TNFalpha agents at conception or during pregnancy; 21 of these (87.5%) pregnancies occurred following maternal exposure and 3 (12.5%) following paternal exposure. While 8/32 (25%) pregnancies, following leaflet recommendations, had suspended the therapy before conception. An overview of pregnancies following maternal exposure is reported in table 1. One infant was diagnosed with congenital diaphragmatic hernia and obstructive megaureter; the mother was exposed to adalimumab (ADA) at conception and developed preeclampsia at 33 week of gestation (WG). One infant was diagnosed with cystic fibrosis at 3 months of age; the mother was exposed to etanercept (ETN) at conception. One mother exposed to certolizumab (CZP) at conception underwent caesarean section at 35 WG due to preterm premature rupture of membranes. Two mothers exposed to ETN at conception developed a vanishing syndrome and a post-partum infection, respectively. There was no significant difference concerning gestational age and birth weight, both between the group exposed to anti-TNF-alpha at conception and that exposed before conception and, between the groups exposed to different anti-TNFalpha agents. Seventeen out of 21 infants (80.9%) underwent vaccinations according to national schedule. None of them have any vaccine complications. The pregnancies following paternal exposure were all in ETN. All pregnancies ended in live births. There was one infant with intrauterine growth restriction. The baby was admitted for 14 days to the neonatal intensive care unit for respiratory distress. Conclusions: Maternal exposure to anti-TNFalpha at conception was not associated with an increased risk of congenital malformation and/or with other adverse outcomes. Also the exposure to anti-TNFalpha in men at time of conception was not associated with any adverse outcome in their partners or newborns. (Table Presented).

Database: EMBASE

How safe is infliximab therapy during pregnancy and lactation in inflammatory bowel disease?

Author(s): Chaparro, María; Gisbert, Javier P

Source: Expert opinion on drug safety; Dec 2014; vol. 13 (no. 12); p. 1749-1762

Publication Date: Dec 2014

Abstract: Infliximab has been approved for the treatment of patients with inflammatory bowel diseases (IBD). However, data regarding its safety during pregnancy and breastfeeding are scarce. Relevant papers sourced from bibliographical searches (MEDLINE) up to June 2014 are reviewed. Infliximab, as adalimumab, crosses the placenta from the end of the second trimester. The use of anti-TNF agents after the second trimester leads to intrauterine exposure. Although infliximab during pregnancy in IBD patients seems to be safe in the short-term, there are concerns about the consequences of the early exposition with this drug for the development of the newborn immune system. Accordingly, it has recently been suggested that anti-TNF drugs should be stopped during, at least, the second trimester, when the mother is in remission; this approach seems to be safe for the mother and minimizes fetal exposition to the drug. Infliximab has been detected in breast milk in miniscule amounts. Case reports do not suggest toxicity; however, the effects of exposure on the neonate merit further investigation. Infliximab appears to be safe for the mother with IBD and the newborn, at least in the short-term. Infliximab is transferred in breast milk; although its toxicity is unlikely, it cannot be discounted without further long-term data.

Database: Medline

Anti-TNFalpha therapies are safe during pregnancy in women with inflammatory bowel disease: A systematic review and meta-analysis

Author(s): Narula N.; Al-Dabbagh R.; Marshall J.K.; Dhillon A.; Sands B.E.

Source: Inflammatory Bowel Diseases; Oct 2014; vol. 20 (no. 10); p. 1862-1869

Publication Date: Oct 2014

Available in full text at Inflammatory Bowel Diseases - from Ovid

Available in full text at Inflammatory Bowel Diseases - from John Wiley and Sons

Abstract: Background: The use of TNFalpha antagonists is well described for inflammatory bowel disease (IBD), but their safety profile during pregnancy is yet to be fully elucidated. A systematic review and meta-analysis were performed to identify studies that explored the safety of anti-TNFalpha therapy during pregnancy in patients with IBD. Methods: A systematic literature search was conducted to identify studies that investigated the pregnancy outcomes among women with IBD on anti-TNFalpha therapy. The primary outcome was the overall rate of unfavourable pregnancy-related outcomes among women with IBD on anti-TNFalpha therapy. Secondary outcomes included rates of abortions (spontaneous or elective), preterm delivery, low birth weight, and congenital malformations. Odds ratios (OR) with 95% confidence interval (CI) are reported. Eligible studies used an observational or interventional design, enrolled subjects with IBD on anti-TNFalpha therapy for at least 1 trimester and compared outcomes with appropriately matched controls. Results: Overall, 5 studies with a total of 1216 participants were eligible for inclusion in the meta-analysis. There was no significant difference in the rates of total unfavourable pregnancy outcomes between pregnant women with IBD who were on anti-TNFalpha therapy and controls not on anti-TNFalpha therapy (OR, 1.00 [95% CI, 0.72-1.41]). Similarly, there were no statistically significant differences in the rates of abortion (OR, 1.53 [95% CI, 0.97-2.41]), preterm birth (OR, 1.00 [95% CI, 0.62-1.62]), low birth weight (OR, 1.05 [95% CI, 0.62-1.78]), or congenital malformation (OR, 1.10 [95% CI, 0.58-2.09]). Conclusions: The use of anti-TNFalpha therapy does not seem to increase the risk of unfavorable pregnancy outcomes among women with IBD, although the optimal timing of therapy through pregnancy and the postpartum period was not assessed in this analysis. These data can help counsel

patients around family planning and perinatal management. Copyright © 2014 Crohn's & Colitis Foundation of America, Inc.

Database: EMBASE

Biologic therapy in pregnant women with inflammatory bowel disease

Author(s): Martinez N.; Abascal A.; Sotillo L.; Bartha J.L.; Robles A.; Gomez S.

Source: Journal of Maternal-Fetal and Neonatal Medicine; Jun 2014; vol. 27 ; p. 262-263

Publication Date: Jun 2014

Available in full text at Journal of Maternal-Fetal and Neonatal Medicine, The - from Taylor & Francis

Abstract: Brief Introduction: Inflammatory bowel disease (IBD) is a very frequent disease in childbearing women. Biologic therapy (BT) is used in this patients to mantain stable the disease. No flares in the clinical evolution is one of the most important items for good perinatal outcomes. The objective is to evaluate maternal and perinatal outcomes in patients with IBD exposed and not exposed to BT. Materials & Methods: Retrospective study of maternal records of pregnant women with IBD since 2009 to 2013. A total of 68 women with IBD were evaluated. 30 patients (44.1%) had Crohn Disease (CD) and 38 (55.9%) ulcerative colitis (UC) and had an average of 8.3 years of disease evolution. Mean maternal age was 34.3 years old (4.42 DS) with a body mass index (BMI) medium of 24 (4.76 DS). Most of them (44, 64.7%) were primiparous. Mesalazine was the most used treatment (22, 33.8%) and 8 patients (12.3%) were exposed to BT (5 infliximab and 3 adalimumab). All BT were started before pregnancy and most of them (6, 75%) continued until third trimestre. Clinical Cases or Summary Results: 60 pregnant women not exposed to BT and 8 exposed to BT were studied. Mean gestational age at birth was 38.1 and 37.5 weeks respectivebly. There were not any severe flare in any of both groups. There was a 12.5% (n = 1) of prematurity rate in BT group compared with 6.3% in not BT exposed group, similar general population. Mean newborn weigh percentils at birth were similar in both groups and there was a 12.5% of small for gestacional age (SGA) in BT group vs 9% in not BT group. The cesarean section rate was higher in both groups when compared with general population but adjusted to obstetric causes, it was very similar in both groups (20-25%) when compared with general population. There was no mayor congenital disorders in both two groups and no neonatal infections were detected. Conclusions: BT during pregnancy in IBD pregnant women is not associated to more congenital malformations, preterm birth, SGA neither cesarean section than IBD pregnant women not exposed to BT.

Database: EMBASE

Effects of discontinuing anti-tumor necrosis factor therapy during pregnancy on the course of inflammatory bowel disease and neonatal exposure

Author(s): Zelinkova Z.; van der Ent C.; Kuipers E.J.; van der Woude C.J.; Bruin K.F.; van Baalen O.; Vermeulen H.G.; Ouwendijk R.J.; Smalbraak H.J.T.; Hoek A.C.; van der Werf S.D.

Source: Clinical Gastroenterology and Hepatology; Mar 2013; vol. 11 (no. 3); p. 318-321

Publication Date: Mar 2013

Abstract: Background & Aims: We assessed the course of inflammatory bowel disease (IBD) among pregnant women who stopped taking anti-tumor necrosis factor (TNF) agents. We also analyzed levels of anti-TNF agents in cord blood samples. Methods: We followed 31 pregnancies in 28 women with IBD between April 2006 and April 2011 who were treated with anti-TNF agents (18 received infliximab, and 13 received adalimumab) during pregnancy. We used enzyme-linked immunosorbent assays to measure levels of anti-TNF agents in cord blood collected from 18 newborns (12 whose mothers took infliximab, and 6 whose mothers took adalimumab). Results: Among the patients

taking infliximab, 12 (71%) discontinued treatment before gestational week 30; all patients remained in remission. All the patients taking adalimumab discontinued treatment before gestational week 30; two patients had relapses of IBD. There were 28 live births, 1 miscarriage among patients taking infliximab (at gestational week 6), and 2 miscarriages among patients taking adalimumab (at weeks 6 and 8); there were no congenital malformations. The mean cord blood level of infliximab was 6.4 +/- 1.6 mug/mL; it was significantly lower among women who received the drug 10 weeks or less before delivery (2.8 +/- 1.1 mug/mL) than those who received infliximab closer to delivery (10 +/- 2.3 mug/mL; P = .02). Adalimumab was detected in 5 samples of cord blood (mean concentration, 1.7 +/- 0.4 mug/mL); 1 cord blood sample from a woman who discontinued the treatment at gestational week 22 had an undetectable level of the drug. Conclusions: Discontinuation of anti-TNF therapy appears to be safe for pregnant women with quiescent IBD. However, these drugs are still detected in cord blood samples.

Database: EMBASE

Is safety infliximab during pregnancy in patients with inflammatory bowel disease?

Author(s): Arguelles-Arias F.; Castro-Laria L.; Cordero-Ruiz P.; Herrerias-Gutierrez J.M.; Barreiro-de-Acosta M.; Dominguez-Munoz E.J.; Garcia-Sanchez M.V.; Iglesias-Flores E.; Gomez-Camacho F.; Guerrero-Jimenez P.; Gomez-Garcia M.R.

Source: Revista Espanola de Enfermedades Digestivas; 2012; vol. 104 (no. 2); p. 59-64

Publication Date: 2012

Available in full text at Revista Española de Enfermedades Digestivas - from Free Access Content

Abstract: Background: in most cases, inflammatory bowel disease (IBD) debuts at reproductive age. The data available in the literature show infliximab (IFX) to be a safe drug during pregnancy but there is very little evidence about the activity of the disease following drug withdrawal during pregnancy. Aims: determine the drug's safety in pregnant women in our setting and assess its effect on the foetus, drawing on the experience of several hospitals. Secondly, observe the effect of treatment withdrawal on disease activity during pregnancy. Material and methods: a retrospective study was conducted of women with IBD who had received IFX treatment during pregnancy in five hospitals in Spain. Disease activity was assessed using Crohn's Disease Activity Index, while UC was assessed using the Truelove-Witts Index in each trimester of pregnancy. Gestational age, weight and diseases in the foetus were determined at birth. Results: the study included 12 women with a mean age of 29 years; 4 had ulcerative colitis and 8 Crohn's disease, with mean disease duration of 7 years. All but one, who was diagnosed during pregnancy, was receiving IFX treatment at conception. Six patients received uninterrupted treatment throughout the pregnancy, 2 requested voluntary interruption and in 3 cases treatment was interrupted in the third trimester as a precaution. They received a mean IFX dose of 400 mg every 8 weeks. Of the 6 patients who received continuous treatment, in 50% disease was held in remission. The 6 remaining patients suspended treatment for different reasons, presenting disease recurrence in all but one case (83.3%). Eight deliveries were vaginal and 4 by caesarean section. Newborns presented no congenital anomalies, intrauterine growth retardation or low birth weight and there was only one premature delivery. Conclusions: although cases included in the stduy are not significant, in our experience, IFX during pregnancy is a safe treatment for the mother and the foetus. In fact, in our study and in some cases, its withdrawal may lead to a worsening of the disease. How - ever, further control studies are required with larger samples to obtain more representative findings.

Database: EMBASE

Emerging data on the use of anti-tumor necrosis factor-alpha medications in pregnancy

Author(s): Chambers C.D.; Johnson D.L.

Source: Birth Defects Research Part A - Clinical and Molecular Teratology; Aug 2012; vol. 94 (no. 8); p. 607-611

Publication Date: Aug 2012

Available in full text at Birth Defects Research Part A: Clinical and Molecular Teratology - from John Wiley and Sons

Abstract: Anti-tumor necrosis factor (TNF) alpha medications are used for the treatment of a number of autoimmune diseases. Evaluation of pregnancy safety for these medications is complicated by the contribution of the underlying maternal disease to adverse pregnancy outcomes, such as preterm delivery and reduced birth weight. Placental transport of these medications is thought to be minimal in the first trimester, thereby providing some reassurance regarding theoretical risks for congenital malformations. Available human exposure data are sparse; however, to date there has been no convincing evidence to support an increased risk for a specific pattern of major congenital malformations with any of the drugs in this group for which some data is currently available. As a result of the improvement of symptoms during pregnancy in some women with autoimmune diseases, it may be possible to discontinue treatment before or shortly after conception. However, in some cases the benefits of treatment and concerns for disease flares in pregnancy have warranted continued treatment during pregnancy. Because of the relatively long half-life of these medications, and theoretical concerns for immune compromise of the infant following exposure in the latter two trimesters, some clinicians recommend discontinuation of treatment in the third trimester to avoid potentially prolonged infant exposure in the postpartum period. Currently ongoing controlled cohort studies for some of the TNF blocker medications will help to provide more definitive answers for clinicians and patients. © 2012 Wiley Periodicals, Inc..

Database: EMBASE

Evaluation of the discontinuation of infliximab during pregnancy in inflammatory bowel disease patients

Author(s): Zelinkova Z.; Van Der Ent C.; Kuipers E.J.; Van Der Woude C.J.; Bruin K.; Van Baalen O.; Vermeulen H.; Ouwendijk R.; Smalbraak H.; Hoek A.; Van Der Werf S.

Source: Journal of Crohn's and Colitis; Feb 2012; vol. 6

Publication Date: Feb 2012

Available in full text at Journal of Crohn's and Colitis - from Oxford University Press ; Collection

Abstract: Background: For the use of infliximab (IFX) during pregnancy, it is advised to discontinue the treatment prior to the third trimester in order to limit the early postnatal exposure to IFX. It is unclear whether this approach is safe for the mother and whether it reduces the neonatal exposure to IFX. Therefore, the aim of this study was first, to assess the disease course during the pregnancy after discontinuation of IFX and second, to evaluate whether early discontinuation leads to the reduction of IFX levels in newborns. Methods: Pregnant IBD patients using IFX were prospectively followed. In case of remission, IFX was discontinued prior to gestational week 30. Disease activity and complications of the resumption of the treatment were evaluated. IFX levels in the newborns' cord blood were assessed by ELISA. The differences in these levels between the patients with time from the last infusion to delivery 10 weeks and less were compared with the group of patients with more than 10 weeks from the last infusion to delivery (early discontinuation) by t-test. For the correlation of gestational week of IFX discontinuation with IFX levels in the newborns a nonparametric correlation test was used. Results: In total, 17 pregnancies in 16 patients (mean age 29 years, range 18 to 37; 10 with Crohn's disease and 6 with ulcerative colitis) were followed. There was one spontaneous miscarriage at week 6 and 16 live births with an average birth weight of 3278

grams (range 2200 to 4210). Twelve patients (75%) had quiescent disease and discontinued the treatment between gestational weeks 18 and 27 (average week 23). All 12 patients remained in remission and the treatment was resumed after delivery without complications. Four patients (25%) were not in remission and received last infusion between gestational weeks 30 and 32. The cord blood was collected from 12 newborns. Overall mean IFX level was 5.0+/-SEM 1.4 mg/mL. The mean cord blood IFX level in the early discontinuation group was significantly lower than in the group with 10 or less weeks from the last infusion to delivery (2.4+/-SEM 1.0 mg/mL and 8.5+/-SEM 2.2 mg/mL, respectively; p = 0.02). The levels of IFX in the cord blood correlated significantly with the gestational week of IFX discontinuation (Spearman's rho=0.69, p = 0.013). Conclusions: In quiescent disease, early discontinuation of infliximab during pregnancy in inflammatory bowel disease patients is safe for the mothers-to-be and reduces the neonatal exposure to infliximab.

Database: EMBASE

Safety of immunomodulators and anti-TNF drugs for the treatment of inflammatory bowel disease (IBD) during pregnancy

Author(s): Casanova M.J.; Chaparro M.; Flores E.I.; Rodrigo L.; Domenech E.; Calvet X.; Garcia-Planella E.; Bermejo F.; Taxonera C.; Barreiro-de Acosta M.; Garcia S.; Ginard D.; Cabriada J.L.; Garrido E.; Gomez-Garcia M.; Perez-Calle J.L.; Saro C.; Piqueras M.; Beltran B.; Esteve M.; Botella B.; Duenas C.; Garcia-Sanchez V.; Mate J.; Gisbert J.P.

Source: Gastroenterology; May 2011; vol. 140 (no. 5)

Publication Date: May 2011

Abstract:BACKGROUND: Approximately 25% of women with IBD will conceive after the diagnosis of the disease. The majority of medications used for the treatment of IBD are not associated with significant adverse effects. However, the safety of other agents for treating IBD, such as immunomodulators and anti-TNF drugs, is more controversial, as the experience with these drugs during pregnancy is limited. AIM: To assess the safety of immunomodulators and anti-TNF drugs for the treatment of IBD during pregnancy. METHODS: Retrospective, multicenter, case-control study. Cases were considered those pregnancies developed with the IBD patient on immunomodulators or anti-TNF drugs during pregnancy or during the 6 months before conception, and controls those in which the mother with IBD did not receive these drugs either during pregnancy or the 6 months before conception. Data were obtained from the review of medical records and by an interview with the patient when additional information was necessary. A favourable Pregnancy Outcome (PO) was considered if pregnancy had been developed without obstetric complications in the mother and in the newborn. RESULTS: 312 pregnancies have been included: 202 pregnancies in the case group and 110 pregnancies in the control group. 58% of mothers had Crohn's disease (CD) and 29% had active disease during pregnancy. 15% of pregnancies were exposed to anti-TNF drugs (infliximab 11%, adalimumab 3%, certolizumab 1%) and 58% to immunomodulators (azathioprine 54%, mercaptopurine 3% and methotrexate 1%). The characteristics of the mothers were similar in both groups except for the type of IBD, with higher prevalence of CD among cases (71% vs. 33%,p<0.001) and also a higher prevalence of surgery due to IBD among cases (36% vs. 9%,p<0.001). The prevalence of unfavourable PO was higher in control than in cases group (37% vs. 24%,p=0.02). The distribution of pregnancy and newborn complications in cases and controls were as follow: spontaneous abortion (10% vs. 17%,p=0.06), preterm delivery (4% vs. 12%,p=0.01), cesarean section (26% vs. 21%,p=0.4), instrumental delivery (4% vs. 3%,p=0.08), low birth weight (6% vs. 10%, p=0.2), ICU admission (3% vs. 3%,p=0.8), and malformations (1% vs. 0%,p=0.6). In the multivariate analysis, the treatment with immunomodulators (OR=0.3; 95%CI=0.2-0.6) and having CD (vs. ulcerative colitis) (OR=0.5; 95%CI=0.3-0.9) were the only predictors of favourable PO. The treatment with anti-

TNF drugs was not associated with an unfavourable PO (OR=1.1; 95%CI=0.6-2.3). CONCLUSIONS: The treatment with immunomodulators and anti-TNF drugs do not seem to increase the risk of complications during pregnancy and are safe for the newborn.

Database: EMBASE

The safety of immunomodulators and anti-TNF drugs for the treatment of inflammatory bowel disease (IBD) during pregnancy

Author(s): Casanova M.; Chaparro M.; Mate J.; Gisbert J.P.; Iglesias E.; Garcia V.; Rodrigo L.; Domenech E.; Calvet X.; Garcia Planella E.; Bermejo F.; Taxonera C.; Barreiro-de Acosta M.; Garcia S.; Ginard D.; Lopez M.; Garrido E.; Gomez M.; Perez-Calle J.; Saro C.; Piqueras M.; Beltran B.; Esteve M.; Botella B.; Duenas C.

Source: Journal of Crohn's and Colitis; Feb 2011; vol. 5 (no. 1)

Publication Date: Feb 2011

Abstract: Aim: To assess the safety of immunomodulators and anti-TNF drugs for the treatment of IBD during pregnancy. Methods: Retrospective, multicenter, case control study. Cases were considered those pregnancies developed with the IBD patient on immunomodulators or anti-TNF drugs during pregnancy or during the 6 months before conception, and controls those in which the mother with IBD did not receive these drugs either during pregnancy or the 6 months before conception. Data were obtained from the review of medical records and by an interview with the patient when additional information was necessary. A favourable Pregnancy Outcome (PO) was considered if pregnancy had been developed without obstetric complications in the mother and in the newborn. Results: 312 pregnancies have been included: 202 pregnancies in the case group and 110 pregnancies in the control group. 58% of mothers had Crohn's disease (CD) and 29% had active disease during pregnancy. 15% of pregnancies were exposed to anti-TNF drugs (infliximab 11%, adalimumab 3%, certolizumab 1%) and 58% to immunomodulators (azathioprine 54%, mercaptopurine 3% and methotrexate 1%). The characteristics of the mothers were similar in both groups except for the type of IBD, with higher prevalence of CD among cases (71% vs. 33%, p < 0.001) and also a higher prevalence of surgery due to IBD among cases (36% vs. 9%, p < 0.001). The prevalence of unfavourable PO was higher in control than in case group (37% vs. 24%, p = 0.02). The distribution of pregnancy and newborn complications in cases and controls were as follow: spontaneous abortion (10% vs. 17%, p = 0.06), preterm delivery (4% vs. 12%, p = 0.01), cesarean section (26% vs. 21%, p = 0.4), instrumental delivery (4% vs. 3%, p = 0.08), low birth weight (6% vs. 10%, p = 0.2), ICU admission (3% vs. 3%, p = 0.8), and malformations (1% vs. 0%, p = 0.6). In the multivariate analysis, the treatment with immunomodulators (OR = 0.3; 95%CI = 0.2 0.6) and having CD (vs. ulcerative colitis) (OR = 0.5; 95%CI = 0.3 0.9) were the only predictors of favourable PO. The treatment with anti-TNF drugs was not associated with an unfavourable PO (OR = 1.1; 95%CI = 0.6 2.3). Conclusions: The treatment with immunomodulators and anti- TNF drugs do not seem to increase the risk of complications during pregnancy and are safe for the newborn.

Database: EMBASE

Prospective assessment of the adalimumab discontinuation during pregnancy in inflammatory bowel disease patients

Author(s): Zelinkova Z.; Van Der Ent C.; Kuipers E.J.; Van Der Woude C.J.

Source: Gastroenterology; May 2012; vol. 142 (no. 5)

Publication Date: May 2012

Abstract: Background: Adalimumab (ADA) is considered to be safe for the use during pregnancy but placental transfer of ADA has been reported, presumably starting in the second trimester. To limit the intra-uterine exposure to ADA, it is advised to stop the treatment during the third trimester but the data evaluating the safety of this approach for the mothers are scarce. Therefore, the aim of this study was to assess the effect of the discontinuation of ADA treatment during pregnancy on disease activity and potential complications of the resumption of the treatment. Methods: Pregnant inflammatory bowel disease (IBD) patients using ADA were prospectively followed during pregnancy and postpartum until the resumption of the treatment. In patients with quiescent disease, the treatment was discontinued in the second trimester. Disease activity and complications of the treatment resumption were assessed by the treating physician. In addition, pregnancy outcomes were noted. Results: In total, thirteen pregnancies in 12 IBD patients (mean age 30 years, range 21 to 38) were prospectively followed. One patient had spontaneous miscarriage at gestational week 8; 12 pregnancies resulted in live births. The mean gestational age was 39 weeks (range 36 to 41) and the mean birth weight was 3260 grams (range 2000 to 4320), there were no congenital malformations. All patients discontinued the treatment during the second trimester, mean gestational week of discontinuation was 23 (range 21 to 27). The resumption of the treatment post partum went uneventful. Two patients (16%) experienced a relapse of the disease after discontinuation, at respective gestational weeks 30 and 36. One patient was successfully treated with systemic steroids, the second patient underwent an elective C-section at gestational week 37 and ADA was resumed immediately after delivery without complications. Both relapsing patients were the only patients with weekly use of 40mg of ADA, the remaining patients were using 40mg every other week. Conclusion: In the majority of IBD patients in remission with adalimumab, the treatment can be discontinued in the second trimester of the pregnancy without the risk of flare. However, this approach might not be suitable for patients on established treatment with escalated dose.

Database: EMBASE

Drug therapy for inflammatory bowel disease in pregnancy and the puerperium.

Author(s): Moffatt, Dana C; Bernstein, Charles N

Source: Best practice & research. Clinical gastroenterology; 2007; vol. 21 (no. 5); p. 835-847

Publication Date: 2007

Abstract: Inflammatory bowel disease (IBD) has a peak age of onset in the 3rd decade and a peak prevalent age in the fourth decade in most studies. As a result many patients affected by Crohn's disease and ulcerative colitis are females of reproductive age interested in bearing children. It has been shown that the most important factor in the success of a pregnancy in patients with IBD is the state of disease activity. Therefore, the goal prior to and during pregnancy is to best optimise control of the disease through medical therapy. Unfortunately, many medications utilised to treat IBD are potentially toxic and/or teratogenic, leaving many physicians and patients without a clear answer as to the safest methods of therapy. This review attempts to summarise the medical literature to date, as it pertains to the safety of medical therapy for IBD during pregnancy and the puerperium.

Database: Medline

Rheumatoid arthritis and pregnancy: Safety considerations in pharmacological management

Author(s): Makol A.; Wright K.; Amin S.

Source: Drugs; 2011; vol. 71 (no. 15); p. 1973-1987

Publication Date: 2011

Available in full text at Drugs - from EBSCOhost

Available in full text at Drugs - from ProQuest

Abstract: Pregnancy can pose a challenge to the physician caring for women with rheumatoid arthritis (RA). While many women with RA experience a spontaneous improvement in joint pain and inflammation during pregnancy, in others it remains active and they continue to need ongoing therapy. It is important to tailor the treatment regimen so that the disease is stabilized prior to conception and to use medications that are safe throughout pregnancy and lactation. The use of immunomodulating medications considered low risk during pregnancy allows for optimal outcomes. NSAIDs should be avoided in the third trimester. Corticosteroids may be used throughout pregnancy in the lowest effective dose. Antimalarial agents, sulfasalazine and azathioprine are safe options, but methotrexate and leflunomide are contraindicated as they are teratogenic and must, therefore, be withdrawn before a planned pregnancy. The risk for some of the newer biological therapies for RA is not necessarily their proven teratogenicity, but the absence of proven safety for the fetus. As such, it is recommended that abatacept, rituximab and tocilizumab be withheld prior to pregnancy; however, tumour necrosis factor inhibitors and anakinra may be continued until conception. In this review, we provide an overview of the RA treatment issues pre-conception, during pregnancy and in the post-partum period with respect to breastfeeding, and we provide guidelines for drugs that may be used relatively safely for RA management in pregnant women. Where available, pre-conception guidelines for men using these medications for RA are also discussed.

Database: EMBASE

Rheumatoid arthritis and pregnancy: Disease activity, pregnancy outcomes, and treatment options during pregnancy and lactation

Author(s): Gogia M.; Furst D.E.

Source: Drug Development Research; Dec 2011; vol. 72 (no. 8); p. 689-702

Publication Date: Dec 2011

Available in full text at Drug Development Research - from John Wiley and Sons

Abstract: The present work reviews the available data on rheumatoid arthritis (RA) during pregnancy and the postpartum period. The data generally support some improvement in RA during pregnancy, but these data are not consistent, and a subgroup of patients may have significant disability and flares. The literature supports a tendency toward postpartum flares. Babies born to mothers with RA are found to have lower birth weight, intrauterine growth restriction, and an increased risk of delivery by cesarean section. Limited safety information is available for medications used for treatment during pregnancy and lactation. There are many options for treatment during the first trimester and throughout pregnancy, but each decision must be made on an individual basis. Whereas methotrexate and leflunomide are contraindicated in pregnancy, sulfasalazine is generally considered useful, as is hydroxychloroquine (despite the latter's FDA pregnancy category C rating). Of the biologics, the tumor necrosis factor (TNFi) are classified as category B; the other biologics vary

between categories B and C, but more human data are available on TNFi. © 2011 Wiley Periodicals, Inc.

Database: EMBASE

Pregnancy outcome in inflammatory bowel disease: Prospective European case-control ECCO-EpiCom study, 2003-2006

Author(s): Bortoli A.; Arena I.; Pedersen N.; Munkholm P.; Duricova D.; D'Inca R.; Gionchetti P.; Panelli M.R.; Ardizzone S.; Sanroman A.L.; Gisbert J.P.; Riegler G.; Marrollo M.; Valpiani D.; Corbellini A.; Segato S.; Castiglione F.

Source: Alimentary Pharmacology and Therapeutics; Oct 2011; vol. 34 (no. 7); p. 724-734

Publication Date: Oct 2011

Available in full text at Alimentary Pharmacology and Therapeutics - from John Wiley and Sons

Abstract: Background Inflammatory bowel disease (IBD) frequently affects women during their reproductive years. Pregnancy outcome in women with IBD is well described, particularly in retrospective studies. Aim To evaluate the pregnancy outcome in patients with IBD in a prospective European multicentre case-control study. Methods Inflammatory bowel disease pregnant women from 12 European countries were enrolled between January 2003 and December 2006 and matched (1:1) to non-IBD pregnant controls by age at conception and number of previous pregnancies. Data on pregnancy and newborn outcome, disease activity and therapy were prospectively collected every third month using a standard questionnaire. Logistic regression analysis with odds ratio was used for statistical analyses. P value < 0.05 was considered significant. Results A total of 332 pregnant women with IBD were included: 145 with Crohn's disease (CD) and 187 with ulcerative colitis (UC). Median age (range) at conception was 31 years (15-40) in CD and 31 (19-42) in UC patients. No statistically significant differences in frequency of abortions, preterm deliveries, caesarean sections, congenital abnormalities and birth weight were observed comparing CD and UC women with their non-IBD controls. In CD, older age was associated with congenital abnormalities and preterm delivery; smoking increased the risk of preterm delivery. For UC, older age and active disease were associated with low birth weight; while older age and combination therapy were risk factors for preterm delivery. Conclusion In this prospective case-control study, women with either Crohn's disease or ulcerative colitis have a similar pregnancy outcome when compared with a population of non-inflammatory bowel disease pregnant women. © 2011 Blackwell Publishing Ltd.

Database: EMBASE

Outcome of pregnancy in women with inflammatory bowel disease treated with antitumor necrosis factor therapy

Author(s): Schnitzler F.; Fidder H.; Ferrante M.; Ballet V.; Noman M.; Van Steen K.; Vermeire S.; Rutgeerts P.; Van Assche G.; Spitz B.; Hoffman I.

Source: Inflammatory Bowel Diseases; Sep 2011; vol. 17 (no. 9); p. 1846-1854

Publication Date: Sep 2011

Available in full text at Inflammatory Bowel Diseases - from Ovid

Available in full text at Inflammatory Bowel Diseases - from John Wiley and Sons

Abstract: Background: Infliximab (IFX) and adalimumab (ADA) are attractive treatment options in patients with inflammatory bowel disease (IBD) also during pregnancy but there is still limited data on the benefit/risk profile of IFX and ADA during pregnancy. Methods: This observational study assessed pregnancy outcomes in 212 women with IBD under antitumor necrosis factor alpha (TNF) treatment at our IBD unit. Pregnancy outcomes in 42 pregnancies with direct exposure to anti-TNF

treatment (35 IFX, 7 ADA) were compared with that in 23 pregnancies prior to IBD diagnosis, 78 pregnancies before start of IFX, 53 pregnancies with indirect exposure to IFX, and 56 matched pregnancies in healthy women. Results: Thirty-two of the 42 pregnancies ended in live births with a median gestational age of 38 weeks (interquartile range [IQR] 37-39). There were seven premature deliveries, six children had low birth weight, and there was one stillbirth. One boy weighed 1640 g delivered at week 33, died at age of 13 days because of necrotizing enterocolitis. A total of eight abortions (one patient wish) occurred in seven women. Trisomy 18 was diagnosed in one fetus of a mother with CD at age 37 under ADA treatment (40 mg weekly) and pregnancy was terminated. Pregnancy outcomes after direct exposure to anti-TNF treatment were not different from those in pregnancies before anti-TNF treatment or with indirect exposure to anti-TNF treatment but outcomes were worse than in pregnancies before IBD diagnosis. Conclusions: Direct exposure to anti-TNF treatment during pregnancy was not related to a higher incidence of adverse pregnancy outcomes than IBD overall.

Database: EMBASE

European evidenced-based consensus on reproduction in inflammatory bowel disease

Author(s): van der Woude C.J.; Kolacek S.; Dotan I.; Oresland T.; Vermeire S.; Munkholm P.; Mahadevan U.; Mackillop L.; Dignass A.

Source: Journal of Crohn's and Colitis; Nov 2010; vol. 4 (no. 5); p. 493-510

Publication Date: Nov 2010

Available in full text at Journal of Crohn's and Colitis - from Oxford University Press ; Collection notes: To access please select Login with Athens and search and select NHS England as your institution before entering your NHS OpenAthens account details.

Database: EMBASE

Therapy of inflammatory bowel diseases in pregnancy and lactation

Author(s): Cassina M.; Di Gianantonio E.; Clementi M.; Fabris L.; Okolicsanyi L.; Gervasi M.T.; Memmo A.; Tiboni G.M.

Source: Expert Opinion on Drug Safety; Nov 2009; vol. 8 (no. 6); p. 695-707

Publication Date: Nov 2009

Abstract: Inflammatory bowel diseases (IBDs) are a group of disorders characterised by chronic or relapsing inflammation within the gastrointestinal tract of variable severity. A chronic medication is often needed and management of fertile women is a crucial point because of the possible adverse effects associated with the administered drugs and the disease itself. The risk of pregnancy related complications and the disease behaviour during pregnancy depends mainly on disease activity at time of conception. So, it is very important to plan the pregnancy and reach and maintain a clinical remission of the disease before conception. Drugs usually used in IBD treatment include 5-aminosalicylic acid compounds, corticosteroids, azathioprine and 6-mercaptopurine, cyclosporine A, mesalazine, and antibiotics such as metronidazole and ciprofloxacin. Management of IBD in pregnancy at present is not standardised or supported by strong evidence. In this report, we summarise the available data, mainly derived from retrospective and case-control studies, about IBD management in pregnancy, focusing mostly on the safety of drugs during gestation and peripartum.

Database: EMBASE

Intentional infliximab use during pregnancy for induction or maintenance of remission in Crohn's disease

Author(s): Mahadevan U.; Terdiman J.P.; Kane S.; Cohen R.D.; Sandborn W.J.; Hanson K.; Binion D.G.

Source: Alimentary Pharmacology and Therapeutics; Mar 2005; vol. 21 (no. 6); p. 733-738

Publication Date: Mar 2005

Available in full text at Alimentary Pharmacology and Therapeutics - from John Wiley and Sons

Abstract: Aim: To study the effects of infliximab on pregnancy and foetal outcome. Methods: We conducted a retrospective chart review of women with Crohn's disease treated intentionally with infliximab during pregnancy. The primary outcome measure was the occurrence of congenital malformations. Secondary outcome measures were the rate of premature birth, low-birth weight, small for gestational age infants, intrauterine growth retardation and caesarean section. Results: Ten women were identified. Eight women received maintenance infliximab infusions throughout their pregnancy and two women received their initial infliximab infusions during pregnancy. All 10 pregnancies ended in live births. No infants had congenital malformations, intrauterine growth retardation or small for gestational age parameters. Three infants were premature and one had low-birth weight. Eight women had a caesarean section. Conclusions: This is the first reported series of intentional infliximab use throughout pregnancy. These data, combined with other studies of inadvertent use of infliximab during pregnancy, suggest that the benefits of infliximab in achieving response and maintaining remission in mothers with Crohn's disease may outweigh the risk to the foetus of exposure to the drug. Further prospective data collection will be helpful to confirm these findings. © 2005 Blackwell Publishing Ltd.

Database: EMBASE

Biological Therapy and Postoperative Complications (Non-Pregnant)

Management of perioperative tumour necrosis factor alpha inhibitors in rheumatoid arthritis patients undergoing arthroplasty: A systematic review and meta-analysis

Author(s): Goodman S.M.; Bykerk V.P.; Menon I.; Christos P.J.; Smethurst R.

Source: Rheumatology (United Kingdom); Mar 2016; vol. 55 (no. 3); p. 573-582

Publication Date: Mar 2016

Available in full text at Rheumatology - from Oxford University Press ; Collection notes: To access please select Login with Athens and search and select NHS England as your institution before entering your NHS OpenAthens account details.

Abstract: Objective. Tumour necrosis factor a inhibitors (TNFis) are widely used in RA patients who undergo surgery, and optimal perioperative management must balance the risk of infection with the risk of post-operative flare. The purpose of this study is to examine the impact of TNFi exposure on surgical site infections (SSIs) in RA patients undergoing elective orthopaedic surgery by systematic review and meta-analysis. Methods. A systematic review of the literature and meta-analysis were performed using PUBMED, EMBASE and the Cochrane Central Register of Controlled Trials, through May 2014. Two independent reviewers screened titles and abstracts, and analysed selected papers in detail. Included studies assessed RA patients with or without TNFi exposure prior to orthopaedic surgery, and described post-operative infections. Study quality was assessed using the Oxford Centre for Evidence-based Medicine Levels of Evidence. Meta-analyses of the individual study odds ratios (ORs) were conducted, and each pooled OR was calculated using a random effects model. Results.

Eight observational studies and three case control studies met inclusion criteria; risk of bias was low in eight studies and moderate in three. Publication bias was not apparent. These studies represent 3681 patients with recent exposure to TNFis (TNFi+) and 4310 with no recent exposure to TNFis (TNFi-) at the time of surgery. The TNFi+ group had higher risk of developing SSI compared with patients in the TNFi- group (random effects model: OR 2.47 (95% CI 1.66, 3.68); P<0.0001). Conclusion. Data from the available literature suggest that there is an increased risk of SSIs in RA patients who use or have recently used TNFis at the time of elective orthopaedic surgery. Prospective studies to confirm these findings and establish the optimal withhold and restart time of TNFis, in the context of other risk factors for infection in RA patients such as higher disease activity, corticosteroid use, smoking and diabetes, are needed.

Database: EMBASE

Perioperative management of tumor necrosis factor-alpha blocker-treated psoriatic patients: Case reports and review

Author(s): Kawakami H.; Matsumoto Y.; Abe N.; Tsuboi R.; Okubo Y.; Katori Y.; Takahashi K.

Source: Journal of Dermatology; Feb 2016; vol. 43 (no. 2); p. 190-193

Publication Date: Feb 2016

Available in full text at Journal of Dermatology, The - from John Wiley and Sons

Abstract: Regarding appropriate timings of discontinuation and resumption of biologics for psoriasis patients before and after elective surgeries, an international consensus has yet to be reached. The Japanese Dermatological Association of Guideline and Safety Manual for the use of Biologic Agents in Psoriasis 2013 states that infliximab (IFX) and adalimumab (ADA) should be withheld at least 4 and 2 weeks, respectively, before surgery and can be restarted as neither postoperative infection nor delayed wound healing is recognized. We experienced three generalized pustular psoriasis (GPP) patients and one plaque-type psoriasis patient undergoing surgeries during tumor necrosis factor (TNF)-alpha blocker therapy. Three GPP cases experienced uneventful post-surgical course. One psoriasis vulgaris patient on IFX had a wound healing delay with deterioration of psoriatic plaques which was restored by restarting IFX. The timing of suspension and resumption of TNF-alpha blockers in all cases were determined following the Japanese guideline.

Database: EMBASE

The risk of post-operative complications in psoriasis and psoriatic arthritis patients on biologic therapy undergoing surgical procedures

Author(s): Bakkour W.; Purssell H.; Griffiths C.E.M.; Warren R.B.; Chinoy H.

Source: Journal of the European Academy of Dermatology and Venereology; Jan 2016; vol. 30 (no. 1); p. 86-91

Publication Date: Jan 2016

Available in full text at Journal of the European Academy of Dermatology and Venereology - from John Wiley and Sons

Abstract: Background There is limited evidence as to whether biologic therapy should be stopped or continued in patients with psoriasis and/or psoriatic arthritis (PsA) who are undergoing surgical procedures. Current guidelines of care recommend a planned break from biologic therapy in those undergoing major surgical procedures. Objective To audit current practice of managing biologic therapy peri-operatively in a tertiary referral psoriasis clinic against guidelines of care and to investigate the effects of continuing/stopping biologic therapy in psoriasis and PsA patients.

Methods A retrospective audit of psoriasis and PsA patients who had a surgical procedure whilst on biologic therapy. A proforma was used to collect information on the biologics used, whether they were stopped peri-operatively and whether patients developed post-operative complications and/or disease flare. Results A total of 42 patients who had 77 procedures were identified. Procedures ranged from skin surgery to orthopaedic and cardiothoracic surgery. Biologic therapy was continued in the majority of procedures (76%). There was no significant difference in post-operative risk of infection and delayed wound healing between those patients who continued and those who stopped biologic therapy, including those undergoing major surgery. Interrupting biologic therapy peri-operatively was associated with a significant (P = 0.003) risk of flare of psoriasis or PsA. Conclusion Continuing biologic therapy in psoriasis and PsA patients peri-operatively did not increase the risk of post-operative complications. Interrupting biologic therapy peri-operatively significantly increased the risk of disease flare. This study is limited by cohort size and requires replication, ideally in a prospective randomized controlled manner.

Database: EMBASE

Preoperative infliximab use and postoperative complications in Crohn's disease: A systematic review and meta-analysis

Author(s): Yang Z.-P.; Hong L.; Wu Q.; Wu K.-C.; Fan D.-M.

Source: International Journal of Surgery; 2014; vol. 12 (no. 3); p. 224-230

Publication Date: 2014

Abstract: Background: Infliximab revolutionized the treatment paradigm of Crohn's disease (CD), but did not reduce the need for surgery. The impact of biologic agents on surgical complication rates remains debated. The aim of this study was to determine the effect of preoperative infliximab use on early postoperative complications in patients with CD undergoing abdominal surgery. Method: PubMed and Embase databases were searched to identify comparative studies that investigated postsurgical morbidity in CD patients receiving infliximab preoperatively with those not on infliximab. We used meta-analysis with random-effects model to calculate the pooled odds ratios (ORs) with 95% confidence intervals (CIs) for total complication rate as well as major, minor, infectious, and non-infectious complications. Results: A total of 18 studies involving 5769 patients included in this systematic review. There was significant association between infliximab therapy prior to surgery and total (OR=1.45, 95% CI 1.04-2.02; 13 studies, 2538 patients), infectious (OR=1.47, 95% CI 1.08-1.99; 10 studies, 2116 patients) and non-infectious (OR=2.29, 95% CI 1.14-4.61; 3 studies, 729 patients) postoperative complications respectively. There was no significant disparity in the major (OR=1.39, 95% CI 0.85-2.27; 9 studies, 3696 patients) and minor (OR=1.39, 95% CI 0.57-3.40; 5 studies, 753 patients) complication rates between infliximab and control groups. No publication bias was detected. Conclusion: Preoperative infliximab use modestly increases the risk of total early postoperative complications, and particularly infectious complications in CD patients.

Database: EMBASE

Maintenance treatment of postoperative Crohn's disease

Author(s): Hashash J.G.; Regueiro M.D.; Barcia M.J.R.

Source: Inflammatory Bowel Disease Monitor; 2013; vol. 13 (no. 4); p. 135-142

Publication Date: 2013

Available in full text at Inflammatory Bowel Disease Monitor - from ProQuest

Abstract: The majority of Crohn's disease patients will undergo a surgical resection for a complication at some point in their lifetime. A surgical resection treats the complication but is not a cure and Crohn's disease recurrence is common. The goals of postoperative Crohn's disease management are to prevent recurrence and avoid future surgery. Medications that may be effective at preventing postoperative recurrence include immunomodulators, anti-tumor necrosis factor agents, and antibiotics. Whether initiating medications in the immediate postoperative setting for prevention of recurrence is a better strategy than waiting for a Crohn's disease relapse is not known. Certain risk factors for postoperative Crohn's disease recurrence may influence management decisions.

Database: EMBASE

Risk factors for surgical site infection and association with infliximab administration during surgery for crohn's disease

Author(s): Uchino M.; Ikeuchi H.; Matsuoka H.; Bando T.; Tomita N.; Kaoru Ichiki R.N.; Nakajima K.; Takesue Y.

Source: Diseases of the Colon and Rectum; Oct 2013; vol. 56 (no. 10); p. 1156-1165

Publication Date: Oct 2013

Available in full text at Diseases of the Colon and Rectum - from Ovid

Abstract: Background: Preoperative infliximab treatment may influence postoperative infectious complications in patients with Crohn's disease. Objective: The aim of this study was to identify predictors of surgical site infection after surgery for Crohn's disease and evaluate the effects of preoperative infliximab administration. DESIGN: We performed a prospective surveillance and review of surgical site infections. SETTINGS: This study was conducted in the Surgical Department of Hyogo College of Medicine. PATIENTS: A total of 405 consecutive patients with Crohn's disease who underwent abdominal surgery between January 2008 and December 2011 were included. MAIN OUTCOME MEASURES: Infection was diagnosed by the infection control team. The possible risk factors were analyzed by using logistic regression analyses to determine their predictive significance. Results: Within the patient population, 20% of patients received infliximab, and 60% had penetrating disease. The median duration from the last infliximab infusion to surgery was 43 days (range, 4-80). The overall incidence of surgical site infection was 27%. The incidence of incisional surgical site infection was 18%, and the organ/space surgical site infection rate was 8%. In the multivariate analysis, proctectomy was the highest risk factor for all surgical site infection (OR, 3.4-11.8; $p < 0.01$). The administration of preoperative infliximab was not a risk factor for surgical site infection. By contrast, there was a significantly reduced risk of incisional surgical site infection in patients with penetrating disease who received infliximab (OR, 0.1; $p < 0.01$). LIMITATIONS: This study was a cohort study and not a randomized trial. The data analyses were performed for surgical site infections but not for other infectious complications. Conclusions: Proctectomy was a high-risk factor for surgical site infection in patients with Crohn's disease. The administration of preoperative infliximab was not a risk factor for surgical site infection.

Database: EMBASE

Meta-analysis: peri-operative anti-TNFα treatment and post-operative complications in patients with inflammatory bowel disease.

Author(s): Narula, N; Charleton, D; Marshall, J K

Source: Alimentary pharmacology & therapeutics; Jun 2013; vol. 37 (no. 11); p. 1057-1064

Publication Date: Jun 2013

Available in full text at Alimentary Pharmacology and Therapeutics - from John Wiley and Sons

Abstract: The impact of peri-operative use of TNFα antagonists on post-operative complications such as infection and wound healing is controversial. To conduct a systematic review and meta-analysis to assess the impact of peri-operative use of TNFα antagonists on post-operative complications such as infection and wound healing in patients with inflammatory bowel disease (IBD). A literature search identified studies that investigated post-operative outcomes in patients with IBD using TNFα antagonists. The primary outcome was the rate of post-operative infectious complications. Secondary outcomes included the rates of non-infectious complications and total complications. Odds ratios (OR) with 95% confidence intervals (CI) are reported. Overall, 18 studies with 4659 participants were eligible for inclusion. Patients with IBD using preoperative anti-TNFα therapies had significant increases in post-operative infectious [OR 1.56 (95% CI, 1.09-2.24)], non-infectious [OR 1.57 (95% CI, 1.14-2.17)] and total complications [OR 1.73 (95% CI, 1.23-2.43)]. Studies limited to patients with Crohn's disease demonstrated a statistically significant increase in infectious (OR 1.93, 95% CI 1.28-2.89) and total (OR 2.19, 95% CI 1.69-2.84) complications, and a trend towards increase in non-infectious complications (OR 1.73, 95% CI 0.94-3.17). Studies of patients with ulcerative colitis did not demonstrate significant increases in infectious (OR 1.39, 95% CI 0.56-3.45), non-infectious (OR 1.40, 95% CI 0.68-2.85), or total complications (OR 1.10, 95% CI 0.81-1.47). Anti-TNFα therapies appear to increase the risk of post-operative complications. The increase in risk is small, and may well reflect residual confounding rather than a true biological effect. Nevertheless, physicians should exercise caution when continuing biological therapies during the peri-operative period. © 2013 Blackwell Publishing Ltd.

Database: Medline

Preoperative infliximab therapy does not increase morbidity and mortality after laparoscopic resection for inflammatory bowel disease

Author(s): Krane M.K.; Allaix M.E.; Zoccali M.; Umanskiy K.; Rubin M.A.; Villa A.; Hurst R.D.; Fichera A.

Source: Diseases of the Colon and Rectum; Apr 2013; vol. 56 (no. 4); p. 449-457

Publication Date: Apr 2013

Available in full text at Diseases of the Colon and Rectum - from Ovid

Abstract:BACKGROUND: The impact of infliximab on the postoperative course of patients with IBD is under debate. OBJECTIVE: The aim of this study was to evaluate the influence of infliximab on perioperative outcomes in patients undergoing elective laparoscopic resection for IBD. DESIGN: This study is a retrospective analysis of a prospectively collected, institutional review boardapproved database. SETTING, PATIENTS, INTERVENTIONS: Patients undergoing laparoscopic resection on preoperative infliximab (infliximab group) were compared with patients who did not receive infliximab (noninfliximab group). MAIN OUTCOME MEASURES: The short-term and longterm morbidity and mortality rates were assessed. RESULTS: Elective laparoscopic resection for IBD was performed on 518 patients from January 2004 through June 2011; 142 patients were treated with infliximab preoperatively. Both groups had similar demographics, type and severity of IBD, comorbidities, and type of surgery. A significantly higher number of patients in the infliximab group had been on aggressive medical therapy to control symptoms of IBD during the month preceding

surgery, including steroids (73.9 vs 58.8%, p = 0.002) and immunosuppressors (32.4 vs 20.5%, p = 0.006). Operative time and blood loss were similar (p = 0.50 and p = 0.34). Intraoperative complication rate was 2.1% in both groups. No significant differences were observed in terms of the conversion rate to laparotomy (6.3% vs 9.3%, p = 0.36), overall 30-day postoperative morbidity (p = 0.93), or mortality (p = 0.61). The rates of anastomotic leak (2.1% vs 1.3%, p = 0.81), infections (12% vs 11.2%, p = 0.92), and thrombotic complications (3.5% vs 5.6%, p = 0.46) were similar. Subgroup analyses confirmed similar rates of overall, infectious, and thrombotic complications regardless of whether patients had ulcerative colitis or Crohn's disease. LIMITATIONS: This study is subject to the limitations of a retrospective design. CONCLUSIONS: Infliximab is not associated with increased rates of postoperative complications after laparoscopic resection. © The ASCRS 2013.

Database: EMBASE

Anti-tumor necrosis factor and postoperative complications in Crohn's disease: Systematic review and meta-analysis

Author(s): Kopylov U.; Ben-Horin S.; Eliakim R.; Katz L.H.; Zmora O.

Source: Inflammatory Bowel Diseases; Dec 2012; vol. 18 (no. 12); p. 2404-2413

Publication Date: Dec 2012

Abstract: Background: Anti-tumor necrosis factor (TNF) antibodies are efficacious in patients with Crohn's disease (CD) but the influence of these medications on surgical outcomes in CD patients has been frequently debated. The aim was to evaluate the impact of preoperative treatment with anti-TNF antibodies on postoperative complications in CD patients undergoing abdominal surgery. Methods: A systematic review and meta-analysis of comparative cohort studies was performed assessing postoperative complication rates in CD patients who were treated with anti-TNF antibodies within 3 months before surgery versus patients who were not. The primary outcome was overall complication rate within 1 month of surgery. Secondary outcomes included the rate of infectious and noninfectious complications. The quality of studies was assessed based on selection of patients and controls, comparability of the study groups, and assessment of outcomes. Odds ratios (OR) with 95% confidence intervals (CIs) were computed. Results: A total of eight studies including 1641 patients were included in our meta-analysis. Preoperative infliximab therapy in CD patients undergoing abdominal surgery was associated with a trend toward an increased rate of total complications (OR 1.72, 95% CI, 0.93-3.19). Anti-TNF treatments were associated with a modestly increased risk of infectious complications (OR 1.50, 95% CI 1.08-2.08), mostly remote from the surgical site (OR 2.07 95% CI 1.30-3.30) and with a trend toward a higher rate of noninfectious complications (OR 2.00, 95% CI 0.89-4.46). Conclusion: Preoperative infliximab treatment is associated with an increased risk of postoperative infectious complications, mostly nonlocal. A trend toward an increased risk of noninfectious and overall complications was also observed. © 2012 Crohn's & Colitis Foundation of America, Inc.

Database: EMBASE

Perioperative complications in elective surgery in patients with rheumatoid arthritis treated with biologics

Author(s): Kubota A.; Nakamura T.; Miyazaki Y.; Sekiguchi M.; Suguro T.

Source: Modern Rheumatology; Nov 2012; vol. 22 (no. 6); p. 844-848

Publication Date: Nov 2012

Abstract: We retrospectively investigated the influence of biological agents on delayed wound healing and the occurrence of postoperative surgical site infection (SSI) in patients after surgery for rheumatoid arthritis. The patients were divided into two groups-those with and without treatment with biological agents (276 and 278 joints, respectively)-and adverse events (delay in wound healing and SSI) were investigated. Wound healing was delayed in 11.4% of total knee arthroplasty (TKA) operations, 16.7% of total ankle arthroplasty operations, and 9.7% of foot surgeries in the treatment group, and in 5.5% of TKA operations, 12.5% of total elbow arthroplasty operations, and 5.7% of foot surgeries in the non-treatment group. The difference in the incidence of delayed wound healing between the two groups was not statistically significant. In the treatment group, postoperative superficial and deep infection developed in one and two joints, respectively. In the non-treatment group, superficial infection developed in one joint. There was no statistically significant difference between the two groups. These findings suggest that the use of biological agents may not affect the incidence of postoperative adverse events related to wound healing and SSI. © Japan College of Rheumatology 2012.

Database: EMBASE

Meta-analysis: Effect of preoperative infliximab use on early postoperative complications in patients with ulcerative colitis undergoing abdominal surgery

Author(s): Yang Z.; Wu Q.; Wu K.; Fan D.; Wang F.

Source: Alimentary Pharmacology and Therapeutics; Nov 2012; vol. 36 (no. 10); p. 922-928

Publication Date: Nov 2012

Abstract: Background Infliximab is widely used in severe and refractory ulcerative colitis (UC). The results of clinical studies are inconsistent on whether preoperative infliximab use increases early postoperative complications in UC patients. Aim To determine the clinical safety and efficacy of preoperative infliximab treatment in UC patients with regard to short-term outcomes following abdominal surgery. Methods PubMed, Embase databases were searched for controlled observational studies comparing postsurgical morbidity in UC patients receiving infliximab preoperatively with those not on infliximab. The primary endpoint was total complication rate. Secondary endpoints included the rate of infectious and non-infectious complications. We calculated pooled odds ratios (ORs) with 95% confidence intervals (CIs) as summary measures. Results A total of 13 studies involving 2933 patients were included in our meta-analysis. There was no significant association between infliximab therapy preoperatively and total (OR = 1.09, 95% CI: 0.87-1.37, P = 0.47), infectious (OR = 1.10, 95% CI: 0.51-2.38, P = 0.81) and non-infectious (OR = 1.10, 95% CI: 0.76-1.59, P = 0.61) postoperative complications respectively. Infliximab might be a protective factor against infection for the use within 12 weeks prior to surgery (OR = 0.43, 95% CI: 0.22-0.83, P = 0.01). No publication bias was found. Conclusion Preoperative infliximab use does not increase the risk of early postoperative complications in patients with ulcerative colitis undergoing abdominal surgery. © 2012 Blackwell Publishing Ltd.

Database: EMBASE

Surgical Outcomes in Inflammatory Bowel Disease Patients and the Potential Impact of Biologic Therapies

Author(s): Cima R.R.

Source: Seminars in Colon and Rectal Surgery; Jun 2012; vol. 23 (no. 2); p. 89-93

Publication Date: Jun 2012

Abstract: The decision to proceed with surgery in an inflammatory bowel disease (IBD) patient is ideally a collaborative effort between the patient, gastroenterologist, and surgeon. Unlike emergency situations where surgery is required to address significant complications of the underlying disease, either ulcerative colitis (UC) or Crohn's disease (CD), elective cases often allow optimizing patient or disease factors in an attempt to improve surgical outcomes. Numerous factors contribute to success after IBD surgery. A detailed description of the pre-, intra-, and postoperative patient and procedure-specific risk factors associated with contributing to or reducing postoperative complications is beyond the scope of this monograph. However, a unique factor often encountered in IBD patients is their long-term immunosuppressive medication use in the perioperative period. They might be on a single agent. However, often they are on multiple medications with different modes of action. In this article, we will review the evidence regarding the impact of immunosuppressive medications commonly used in the treatment of IBD patients with an in-depth consideration of the newer antibody-based therapies. © 2012 Elsevier Inc.

Database: EMBASE

Infliximab and complications after colectomy in patients with ulcerative colitis

Author(s): Bregnbak D.; Mortensen C.; Bendtsen F.

Source: Journal of Crohn's and Colitis; Apr 2012; vol. 6 (no. 3); p. 281-286

Publication Date: Apr 2012

Abstract: Background: Infliximab treatment may increase the risk of subsequent postoperative complications in patients with ulcerative colitis. The main purpose of the present study therefore was to assess postoperative complications in patients who have undergone colectomy for ulcerative colitis with and without previous infliximab treatment. Methods: Through a database search within a five-year period ulcerative colitis patients in a single highly specialized department, who had undergone colectomy, were identified. In total 71 ulcerative colitis patients were identified and analyzed according to pretreatment with infliximab or not. Twenty patients who had received infliximab within 12. weeks prior to colectomy were compared to 51 patients on standard treatment. Data on patient background, concomitant medication, endoscopic and the laboratory results, clinical activity, and complications within 30. days after colectomy were recorded. Results: At primary surgery, patient groups were similar with respect to distribution on gender, age, smoking behavior and concomitant medication. There were significant differences in partial Mayo-scores (7,95 (IFX) vs. 7,64, P=0.032); preoperative CRP-levels (42,72 (IFX) vs. 63,2, P=0.05); postoperative hospitalization time (10,9 (IFX) vs. 11,3. days, P=0.039); and in number of patients who underwent elective surgery (10% vs. 37,3%, P=0.015). There was no short-term mortality in either group and no significant difference in terms of postoperative complications between patients treated with IFX or not. However, the number of postoperative infectious complications was increased in corticosteroid-treated patients irrespective of IFX or not (45,8% in CS group vs. 13,0%, P=0.028). Conclusions: The use of infliximab does not seem to associate with an increased risk of short-term postoperative complications in ulcerative colitis. © 2011 European Crohn's and Colitis Organisation.

Database: EMBASE

Perioperative management of biologic agents used in treatment of rheumatoid arthritis.

Author(s): Mushtaq, Saulat; Goodman, Susan M; Scanzello, Carla R

Source: American journal of therapeutics; Sep 2011; vol. 18 (no. 5); p. 426-434

Publication Date: Sep 2011

Available in full text at American Journal of Therapeutics - from Ovid

Abstract: Patients with rheumatoid arthritis, an inflammatory arthritis that can destroy joint structures, are often on multiple disease-modifying antirheumatic medications to control disease activity. These medications have significant toxicities, most notably immunosuppression leading to increased risk of infection. Furthermore, certain disease-modifying antirheumatic medications have been reported to affect the healing process. Over the course of their lifetime, patients with rheumatoid arthritis may undergo many surgical procedures, often orthopedic interventions, including total joint arthroplasty, reconstructive surgeries, or cervical stabilization. How to manage antirheumatic medications and their toxicities in the perioperative period is a challenging question, especially with regard to the biologic therapies such as antitumor necrosis factor alpha agents. We conducted a review of the available literature pertaining to the perioperative use of biologic agents used to treat rheumatoid arthritis. Although existing data directly addressing complications during specific orthopedic procedures are sparse, information on general surgical complications in rheumatic and other patient populations may be used as a basis for conservative recommendations. (C) 2011 Lippincott Williams & Wilkins, Inc.

Database: Medline

Inflammatory bowel disease: Perioperative pharmacological considerations

Author(s): Kumar A.; Auron M.; Mohr F.; Shen B.; Aneja A.; Jain A.

Source: Mayo Clinic Proceedings; Aug 2011; vol. 86 (no. 8); p. 748-757

Publication Date: Aug 2011

Available in full text at Mayo Clinic Proceedings - from ProQuest

Abstract: The perioperative management of patients with inflammatory bowel disease is challenging given the altered immune system that results from a variety of biologic and immunomodulator therapies. Clinicians are often faced with challenges and complicated equations when deciding on the type and dose of medication. To understand the effect of these medications and review the evidence regarding the management of these medications in the perioperative setting, a PubMed-based literature search (January 1, 1960, through April 1, 2011) was conducted using the following search terms: perioperative management, risk, outcome, inflammatory bowel disease, ulcerative colitis, Crohn's disease, aminosalicylates, glucocorticoids, purine analogues, cyclosporine, methotrexate, biologic therapy, infliximab, and thromboembolism. The 414 articles identified were manually sorted to exclude those that did not address perioperative risk, outcomes, and medications in the abstracts, yielding 84 articles for review. Additional references were obtained from the citations within the retrieved articles. This review surveys the findings of the selected articles and presents guidelines and resources for perioperative medication management for patients with inflammatory bowel disease undergoing surgery. © 2011 Mayo Foundation for Medical Education and Research.

Database: EMBASE

Surgical risks in patients on inflammatory bowel disease medications

Author(s): Lashner B.A.

Source: Gastroenterology and Hepatology; Apr 2011; vol. 7 (no. 4); p. 246-247

Publication Date: Apr 2011

Available in full text at Gastroenterology and Hepatology - from National Library of Medicine

Database: EMBASE

Clinical factors related to the efficacy and complications of orthopedic surgery for rheumatoid arthritis with infliximab

Author(s): Hayata K.; Kanbe K.; Chiba J.; Nakamura A.; Inoue Y.; Hobo K.

Source: International Journal of Rheumatic Diseases; Feb 2011; vol. 14 (no. 1); p. 31-36

Publication Date: Feb 2011

Available in full text at International Journal of Rheumatic Diseases - from John Wiley and Sons

Sons

Abstract: Aims: To determine what clinical factors relating to efficacy besides complications of orthopedic surgery for patients treated with anti-tumor necrosis factor (TNF)-alpha therapy (infliximab), we analyzed the clinical data of 52 cases of orthopedic surgery, such as total hip arthroplasy (THA), total knee arthroplasty (TKA), total shoulder arthroplasy (TSA), total elbow arthroplasty (TEA), arthroscopic synovectomy, foot arthroplasty, spine surgery, hand surgery and fracture. Methods: We analyzed clinical factors including age, disease duration, preoperative C-reactive protein (CRP), disease activity score (DAS)-28, matrix metalloproteinase (MMP)-3, and rheumatoid arthritis particle-agglutination (RAPA) in 52 cases of rheumatoid arthritis (RA) undergoing orthopedic surgery. For complications of orthopedic surgery, signs of postoperative infection were recorded, including rubor, discharge, systemic infection and frequencies of wound dehiscence, as well as the incidence of any surgical complication requiring a secondary revision procedure were measured. Results: Signs of infection or surgical complications occurred in two of 52 patients (3.8%). There is significant correlation between RAPA and improvement of CRP 3months after surgery; however, there is no correlation between infection and clinical factors including age, disease duration, preoperative CRP, MMP-3, RAPA and the period until surgery after infliximab infusion. Conclusion: Infliximab did not increase the risk of either infections or surgical complications occurring in patients with RA within 1year of orthopedic surgery. Improvement of CRP after surgery is likely to be due to infliximab for high RAPA in RA patients.

Database: EMBASE

Serious infections in patients with inflammatory bowel disease receiving anti-tumor-necrosis-factor-alpha therapy: An Australian and New Zealand experience

Author(s): Lawrance I.C.; Croft A.; Radford-Smith G.L.; Florin T.H.J.; Bampton P.A.; Andrews J.M.; Tan P.-K.; Gearry R.B.

Source: Journal of Gastroenterology and Hepatology (Australia); Nov 2010; vol. 25 (no. 11); p. 1732-1738

Publication Date: Nov 2010

Available in full text at Journal of Gastroenterology and Hepatology - from John Wiley and Sons

Abstract: Background and Aim: Anti-tumor-necrosis-factor-alpha (anti-TNF-alpha) medications are effective in inflammatory bowel disease (IBD), but have an increased risk of tuberculosis (TB) and serious infections. The aim of this study was to examine the Australian/New Zealand experience of serious infections and TB in IBD patients receiving anti-TNF-alpha therapy from 1999-2009.Methods: Serious infections, defined as 'requiring hospital admission' and TB cases in patients receiving, or within 3months following, anti-TNF-alpha therapy were analyzed across Australia and New Zealand. Patient demographics, IBD medications, duration of anti-TNF-alpha therapy, and infection details were collected.Results: A total of 5562 IBD patients were managed across the centers. Of these, 489 (16.8%) Crohn's disease and 137 (5.2%) ulcerative colitis patients received anti-TNF-alpha therapy. There were three cases of latent TB that received prophylaxis prior to anti-TNF-alpha therapy. No cases of active TB were reported. Fourteen (2.2%) serious infections occurred. Seven occurred in patients receiving anti-TNF-alpha therapy for less than 6 months, including two cases of primary Varicella zoster (VZV), two cases of Pneumocystis jiroveci pneumonia, two cases of Staphylococcus aureus bacteremia, and one severe flu-like illness. Six patients were taking additional immunosuppressive medications. The other seven infections occurred after 6 months (mean 32.6 +/- 24.3 months) and included one case of primary VZV, one flu-like illness, and five bacterial infections. All infections resolved with treatment.Conclusion: TB is a very rare complication of anti-TNF-alpha therapy in Australia and New Zealand. Serious infections are uncommon but early opportunistic infections with Pneumocystis jiroveci pneumonia suggest a need for vigilance in patients on multiple immunosuppressive medications. VZV vaccination prior to immunosuppressive therapy should be considered in VZV-naive patients. © 2010 Journal of Gastroenterology and Hepatology Foundation and Blackwell Publishing Asia Pty Ltd.

Database: EMBASE

Effect of anti-TNF alpha treatment on short-term post-operative complications in patients with inflammatory bowel disease: An Italian single-centre experience

Author(s): Pugliese D.; Rizzo G.; Armuzzi A.; Verbo A.; Guidi L.; Andrisani G.; Manno A.; Papa A.; De Vitis I.; Mattana C.; Rapaccini G.L.; Coco C.

Source: Gastroenterology; May 2010; vol. 138 (no. 5)

Publication Date: May 2010

Available in print at Patricia Bowen Library and Knowledge Service West Middlesex university Hospital - from Gastronterology

Abstract: Background: The impact of preoperative use of TNF-alpha inhibitors on postoperative complications in patients with inflammatory bowel disease (IBD) is still debated. While it is mostly accepted that their preoperative use for Crohn's disease (CD) does not increase the risk of postoperative complications, the same is controversial for ulcerative colitis (UC). Aim: to evaluate the effect of anti-TNF-alpha preoperative treatment on short-term postoperative complications in patients with IBD. Materials & Methods: Medical records of patients who underwent abdominal surgery for IBD (from 2004 to 2009) after receiving TNF-alpha inhibitors within 12 weeks were analyzed and compared with a matched control group of surgical IBD patients not receiving biologics. Incidence of short-term post-operative complications within 30 days after surgery (mortality, hypomobility, bleeding requiring reoperation, anastomotic leak; infectious, thrombotic, cardiac, hepato-renal and pouchspecific complications) was recorded. Results: 104 patients (68 CD/36 UC; 65 male/39 female; median age: 39 yr, range:16-74; median duration of disease: 5 yr, range:0.5-30) were identified. 5 patients were also affected by general comorbidities (diabetes, chronic hearth disease, renal failure). 50 patients (35 CD/15 UC) were treated with anti-TNF-alpha (infliximab n=39, adalimumab n=10, certolizumab n=1) within 12 weeks prior surgery; among them, 34% and 40% were on concomitant steroids or immunosuppressants, respectively. 54 surgical

patients (33 CD/21 UC) not receiving anti-TNF-alpha drugs served as controls; among them, 52% and 13% were on concomitant steroids or immunosuppressants, respectively. In the anti TNF-alpha group use of concomitant steroids was significantly higher in patients with UC (p=.012) and with extraintestinal manifestation (p=.041). 94 patients underwent elective surgery, 22 with laparoscopic approach. Median post-operative stay was 11 days (range:7-45). No post-operative mortality was recorded. Infectious complications occurred in 16 patients, hypomobility in 1, thrombotic in 1 and hepato-renal complications in 3 patients. Bleeding requiring reoperation was recorded in 3 patients and anastomotic leak occurred in 7. Hospital readmission was necessary for 9 patients. No statistically significant differences between anti-TNF-alpha and control groups were found. Infectious complications occurred on 8 anti-TNF-alpha patients and 8 controls, all of them also on concomitant steroids. Conclusion: The use of anti-TNF-alpha drugs within 12 weeks before abdominal surgery in patients with IBD does not seem associated with increased rate of cumulative postoperative complications.

Database: EMBASE

Influences of anti-tumour necrosis factor agents on postoperative recovery in patients with rheumatoid arthritis

Author(s): Hirano Y.; Kojima T.; Kanayama Y.; Shioura T.; Hayashi M.; Ishiguro N.; Kida D.; Kaneko A.; Eto Y.

Source: Clinical Rheumatology; May 2010; vol. 29 (no. 5); p. 495-500

Publication Date: May 2010

Available in full text at Clinical Rheumatology - from ProQuest

Abstract: The aim of this study is to investigate the influences of the anti-tumour necrosis factor (TNF) agents infliximab and etanercept on the postoperative recovery of patients with rheumatoid arthritis (RA). We also investigated the effects of biologics on wound healing. Patients with RA were split into a TNF group (n=39) that underwent 39 operations and were treated with anti-TNF agents, and a non-TNF group (n=74) that underwent 74 operations and were treated only with conventional disease-modifying antirheumatic drugs. Operations included ankle arthrodesis and total arthroplasty of the hip, knee, elbow, shoulder and ankle. Adverse events (AEs) of surgical wounds, time for complete wound healing, febrile period after operation and recovery parameters after operation (%recovery of haemoglobin (Hb), total protein and albumin at 4 weeks after operation compared with pre-operation levels) were investigated. AEs of surgical wounds occurred in two operations (5.1%) in the TNF group and in five operations (6.8%) in the non-TNF group, but this difference was not statistically significant. There were also no significant differences in the time for complete wound healing and in the length of the febrile period between the two groups. Percentage recovery of Hb was significantly better in the TNF group than in the non-TNF group (96.3% vs. 90.1%, respectively; $p<0.05$). These results suggest that the use of anti-TNF agents does not cause specific AEs on surgical wounds after elective orthopaedic operations in RA patients and might improve the percentage recovery of Hb due to its prompt anti-TNF effects. © 2010 Clinical Rheumatology.

Database: EMBASE

The perioperative use of disease modifying and biologic therapies in patients with rheumatoid arthritis undergoing elective orthopedic surgery

Author(s): Lee M.A.; Mason L.W.; Dodds A.L.

Source: Orthopedics; Apr 2010; vol. 33 (no. 4)

Publication Date: Apr 2010

Available in full text at Orthopedics - from ProQuest

Abstract: Rheumatoid arthritis is a chronic, multisystem autoimmune disease of unknown etiology, characterized by a symmetrical inflammatory polyarthropathy. It is the most common form of inflammatory arthritis in adults and is believed to affect approximately 1% of the adult population in the United Kingdom.1 The principles of management of rheumatoid arthritis are to relieve pain, modify the underlying disease process and inflammation, and maintain normal function. The general management of rheumatoid arthritis therefore involves a number of health care professionals over a long period of time. These include rheumatologists, orthopedic surgeons, rheumatology nurse specialists, occupational therapists, physiotherapists, and podiatrists. Rheumatoid arthritis has the potential to cause an erosive, deforming arthropathy. Referral to an orthopedic surgeon usually occurs at some stage of the patient's disease management. Surgical outcomes are pain relief, preservation or restoration of function, and are rarely aesthetic. The goal of this review article is to provide general guidance in the use of disease-modifying and biologic therapies preoperatively, perioperatively, and postoperatively.

Database: EMBASE

Corticosteroids but not infliximab increase short-term postoperative infectious complications in patients withulcerative colitis

Author(s): Ferrante M.; D'Hoore A.; Vermeire S.; Declerck S.; Noman M.; Van Assche G.; Hoffman I.; Rutgeerts P.; Penninckx F.

Source: Inflammatory Bowel Diseases; 2009; vol. 15 (no. 7); p. 1062-1070

Publication Date: 2009

Available in full text at Inflammatory Bowel Diseases - from Ovid

Abstract: Background: Recent reports suggest that the preoperative use of infliximab (IFX) increases postoperative infectious complications in patients with ulcerative colitis (UC). Therefore, we determined the impact of IFX on postoperative infectious complications. Methods: A consecutive group of 141 UC patients (41% female, median age 39.8 years) undergoing (procto)colectomy was studied. Postoperative infectious complications were compared between 22 patients who received IFX within 12 weeks prior to (procto)colectomy (IFX group) and 119 patients who did not (control group). Short-term infectious complications, consisting of anastomotic leaks, pelvic abscesses, wound infections, and nonsurgical site infections, were recorded within 30 days after primary surgery. Results: At primary surgery there was no significant difference in gender, disease extent, smoking behavior, body mass index, and concomitant medication (including corticosteroids) between the groups. Patients in the IFX group less often underwent restorative proctocolectomy without defunctioning ileostomy (9% versus 34%, P = 0.022), had a significantly shorter median (interquartile range, IQR) disease duration (2.7 [1.2-8.6] versus 5.9 [2.6-13.0] years, P - 0.036) and a significantly higher C-reactive protein level at primary surgery (51.7 [9.9-103.6] versus 19.1 [7.5-42.6] mg/L, P = 0.023). There was no short-term mortality. A moderate-to-high dose of corticosteroids (>20 mg methylprednisolone for >2 months, odds ratio 5.19 [95% confidence interval [CI]: 1.72-15.66], P = 0.003) and a restorative proctocolectomy without defunctioning ileostomy (odds ratio 6.45 [95% CI: 2.12-19.64], P - 0.001) were independent predictors of short-term postoperative infectious complications. Conclusion: Corticosteroids and a restorative proctocolectomy without defunctioning ileostomy, but not IFX, are associated with an increased risk

of short-term postoperative infectious complications in UC.

Database: EMBASE

Perioperative treatment with infliximab in patients with Crohn's disease and ulcerative colitis is not associated with an increased rate of postoperative complications

Author(s): Kunitake H.; Hodin R.; Shellito P.C.; Sands B.E.; Korzenik J.; Bordeianou L.

Source: Journal of Gastrointestinal Surgery; Oct 2008; vol. 12 (no. 10); p. 1730-1736

Publication Date: Oct 2008

Abstract: Purpose: The impact of infliximab (IFX) on postoperative complications in surgical patients with Crohn's disease (CD) and ulcerative colitis (UC) is unclear. We examined a large patient cohort to clarify whether a relationship exists between IFX and postoperative complications. Methods: A total of 413 consecutive patients-188 (45.5%) with suspected CD, 156 (37.8%) with UC, and 69 (16.7%) with indeterminate colitis-underwent abdominal surgery at the Massachusetts General Hospital between January 1993 and June 2007. One hundred one (24.5%) had received preoperative IFX<12 weeks before surgery. These patients were compared to those who did not receive IFX with respect to demographics, comorbidities, presence of preoperative infections, steroid use, and nutritional status. We then compared the cumulative rate of complications for each group, which included deaths, anastomotic leak, infection, thrombotic complications, prolonged ileus/small bowel obstruction, cardiac, and hepatorenal complications. Potential risk factors for infectious complications including preexisting infection, pathological diagnosis, and steroid or IFX exposure were further evaluated using logistic regression analysis. Results: Patients were similar with respect to gender (IFX=40.6% men vs. non-IFX=51.9%, p=0.06), age (36.1 years vs.37.8, p=0.43), Charlson Comorbidity Index (5.3 vs. 5.7, p=0.25), concomitant steroids (75.3% vs. 76.9%, p=0.79), preoperative albumin level (3.3 vs. 3.2, p=0.36), and rate of emergent surgery (3.0% vs. 3.5%, p=1.00). IFX patients had higher rates of CD (56.4% vs. 41.9%, p=0.02), concomitant azathioprine/6-mercaptopurine use (34.6% vs. 16.6%, p<0.0001), and lower rates of intra-abdominal abscess (3.9% vs. 11%, p<0.05). After surgery, the two groups had similar rates of death (2% vs. 0.3% p=0.09), anastomotic leak (3.0% vs. 2.9%, p=0.97), cumulative infections (5.97% vs. 10.1%, p=1), thrombotic complications (3.6% vs. 3.0%, p=0.06), prolonged ileus/small bowel obstructions (3.9 vs. 2.8, p=0.59), cardiac complications (1% vs. 0.6%, p=0.42), and hepatic or renal complications (1.0 vs. 0.6% p=0.72). A logistic regression model was then created to assess the impact of IFX, as well as other potential risk factors, on the rates of cumulative postoperative infections. We found that steroids (odds ratio [OR]=1.2, p=0.74), IFX (OR 2.5, p=0.14), preoperative diagnosis of CD (OR=0.7, p=0.63) or UC (OR=0.6, p=0.48), and preoperative infection (OR=1.2, p=0.76) did not affect rates of clinically important postoperative infections. Conclusions: Preoperative IFX was not associated with an increased rate of cumulative postoperative complications. © 2008 The Society for Surgery of the Alimentary Tract.

Database: EMBASE

Patients with Rheumatoid Arthritis Undergoing Surgery: How Should We Deal with Antirheumatic Treatment?

Author(s): Biesenbach G.; Pieringer H.; Stuby U.

Source: Seminars in Arthritis and Rheumatism; Apr 2007; vol. 36 (no. 5); p. 278-286

Publication Date: Apr 2007

Abstract: Objectives: To review published data on the perioperative management of antirheumatic treatment and perioperative outcome in patients with rheumatoid arthritis (RA). Methods: The review is based on a MEDLINE (PubMed) search of the English-language literature from 1965 to 2005, using the index keywords "rheumatoid arthritis" and "surgery". As co-indexing terms the different disease-modifying antirheumatic drugs (DMARDs) as well as nonsteroidal anti-inflammatory drugs (NSAIDs) and "glucocorticoids" were used. In addition, citations from retrieved articles were scanned for additional references. Furthermore, because the number of published articles is so limited, relevant abstracts presented at congresses were included in the analysis. Results: Continuation of methotrexate (MTX) appears to be safe in the perioperative period. Only a limited number of studies address the use of leflunomide and the results are conflicting. Because of the very long drug half-life, its discontinuation would need to be of long duration and is probably not necessary. Data on hydroxychloroquine do not show increased risks of infection. Regarding sulfasalazine, there are no studies from which definite answers could be drawn on whether it should be withheld perioperatively. Preliminary data show that the risk of infections during treatment with TNF-blocking agents may be lower than initially expected. The only available recommendation (Club Rhumatismes et Inflammation, CRI) suggests discontinuing the drugs before surgery for several weeks, depending on the risk of infection and the drug used. They should not be restarted until wound healing is complete. To avoid the antiplatelet effect during surgery, NSAIDs other than aspirin should be withheld for a duration of 4 to 5 times the drug half-life. Patients with chronic glucocorticoid therapy and suppressed hypothalamic-pituitary-adrenal (HPA) axis need perioperative supplementation. Conclusions: While continuation of MTX likely is safe, data on other DMARDs are sparse. In particular, more data on the perioperative use of the biologic agents are needed.

Database: EMBASE

Risk factors for surgical site infections and other complications in elective surgery in patients with rheumatoid arthritis with special attention for anti-tumor necrosis factor: A large retrospective study

Author(s): Den Broeder A.A.; De Jong E.; De Rooij D.-J.R.; Wymenga A.; Van Den Hoogen F.H.J.; Creemers M.C.W.; Fransen J.; De Waal-Malefijt M.

Source: Journal of Rheumatology; Apr 2007; vol. 34 (no. 4); p. 689-695

Publication Date: Apr 2007

Abstract: Objective. To identify risk factors for surgical site infection (SSI) in patients with rheumatoid arthritis (RA) with special attention for anti-tumor necrosis factor (anti-TNF) treatment. Methods. All patients with RA who had undergone elective orthopedic surgery since introduction of anti-TNF were included in a retrospective parallel-cohort study with a one-year followup. Primary endpoint was a SSI according to the 1992 Centers for Disease Control and Prevention criteria and/or antibiotic use. Cohort 1 did not use anti-TNF, cohort 2 used anti-TNF but had either stopped (2A) or continued anti-TNF preoperatively (2B), the cutoff point being set at 4 times the half-life time of the drug. Infection rates were compared between cohorts, and logistic regression analysis was performed to examine risk factors. Results. In total, 1219 (768 patients) procedures were included, and crude infection risks were 4.0% (41/1023), 5.8% (6/104), and 8.7% (8/92) in cohorts 1, 2A, and 2B, respectively. Elbow surgery (OR 4.1,95% CI 1.6-10.1), foot/ankle surgery (OR 3.2,95% CI 1.6-6.5), and prior skin or wound infection (OR 13.8, 95% CI 5.2-36.7) were associated with increased risk of SSI, whereas duration of surgery (OR 0.42,95% CI 0.23-0.78) and sulfasalazine use (OR 0.21,95% CI 0.05-0.89) were associated with decreased risk. Perioperative use of anti-TNF was not significantly associated with an increase in SSI rates (OR 1.5,95% CI 0.43-5.2). Conclusion. The most important risk factor for SSI is history of SSI or skin infection. Although our study was not powered to detect

small differences in infection rates, perioperative continuation of anti-TNF does not seem to be an important risk factor for SSI.

Database: EMBASE

Risk of serious bacterial infections among rheumatoid arthritis patients exposed to tumor necrosis factor alpha antagonists

Author(s): Curtis J.R.; Patkar N.; Xie A.; Allison J.J.; Saag M.; Saag K.G.; Martin C.; Shatin D.

Source: Arthritis and Rheumatism; Apr 2007; vol. 56 (no. 4); p. 1125-1133

Publication Date: Apr 2007

Available in full text at Arthritis and Rheumatism - from John Wiley and Sons

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Abstract: Objective. To evaluate the risk of serious bacterial infections associated with tumor necrosis factor alpha (TNFalpha) antagonists among rheumatoid arthritis (RA) patients. Methods. A retrospective cohort study of US RA patients enrolled in a large health care organization identified patients who received either TNFalpha antagonists or methotrexate (MTX). Administrative data were used to identify hospitalizations with possible bacterial infections; corresponding medical records were abstracted and reviewed by infectious disease specialists for evidence of definite infections. Proportional hazards models evaluated time-dependent infection risks associated with TNFalpha antagonists. Results. Hospital medical records with claims-identified suspected bacterial infections were abstracted (n = 187) among RA patients who received TNFalpha antagonists (n = 2,393; observation time 3,894 person-years) or MTX (n = 2,933; 4,846 person-years). Over a median followup time of 17 months, the rate of hospitalization with a confirmed bacterial infection was 2.7% among the patients treated with TNFalpha antagonists compared with 2.0% among the patients treated with MTX only. The multivariable-adjusted hazard ratio (HR) of infection among the patients who received TNFalpha antagonists was 1.9 (95% confidence interval [95% CI] 1.3-2.8) compared with patients who received MTX only. The incidence of infections was highest within 6 months after initiating TNFalpha antagonist therapy (2.9 versus 1.4 infections per 100 person-years; multivariable-adjusted HR 4.2, 95% CI 2.0-8.8). Conclusion. The multivariable-adjusted risk of hospitalization with a physician-confirmed definite bacterial infection was ~2-fold higher overall and 4-fold higher in the first 6 months among patients receiving TNFalpha antagonists versus those receiving MTX alone. RA patients were at increased risk of serious infections, irrespective of the method used to define an infections outcome. Patients and physicians should vigilantly monitor for signs of infection when using TNFalpha antagonists, particularly shortly after treatment initiation. © 2007, American College of Rheumatology.

Database: EMBASE

Tumour necrosis factor alpha antagonists and early postoperative complications in patients with inflammatory joint disease undergoing elective orthopaedic surgery

Author(s): Talwalkar S.C.; Hayton M.J.; Grennan D.M.; Gray J.; Johnson P.

Source: Annals of the Rheumatic Diseases; Apr 2005; vol. 64 (no. 4); p. 650-651

Publication Date: Apr 2005

Available in full text at Annals of the Rheumatic Diseases - from ProQuest

Database: EMBASE

Perioperative management of patients with rheumatoid arthritis in the era of biologic response modifiers.

Author(s): Rosandich, Peter A; Kelley, Joe T; Conn, Doyt L

Source: Current opinion in rheumatology; May 2004; vol. 16 (no. 3); p. 192-198

Publication Date: May 2004

Available in full text at Current Opinion in Rheumatology - from Ovid

Abstract: This article provides guidelines for the perioperative management of the most commonly used antirheumatic drugs being used to treat patients with rheumatoid arthritis, with an emphasis on the relatively new addition of biologic response modifiers. Few clinical data exist examining the perioperative management of the biologic drugs, which include the inhibitors of tumor necrosis factor-alpha (etanercept, infliximab, and adalimumab), the interleukin-1 receptor antagonist anakinra, and to a much lesser extent the CD20 inhibitor rituximab. The only human data available in that regard is based on the use of the tumor necrosis factor-alpha inhibitor infliximab in surgical patients with Crohn disease. Although quite limited, that data appeared favorable in finding that infliximab did not result in an increased risk of postoperative complications in that setting. Perioperative guidelines have never been well established for a majority of the traditional antirheumatic drugs in use today. Recommendations for the perioperative use of nonsteroidal antiinflammatory drugs and glucocorticoids have the most evidence-based support. Data for the use of methotrexate are also available from which to generate reasonable guidelines; however, for the remaining antirheumatic drugs in current use, the available data cannot support any clear evidence-based recommendations. To provide reasonable guidelines for the use of the biologics, perhaps the best we can do is to extrapolate from the very limited data coming from the concurrent use of infliximab in patients with Crohn disease who have undergone surgery. Beyond that, we are left with animal and tissue culture data from which any recommendations would be rather tenuous.

Database: Medline

Early postoperative complications are not increased in patients with Crohn's disease treated perioperatively with infliximab or immunosuppressive therapy

Author(s): Colombel J.F.; Loftus Jr. E.V.; Tremaine W.J.; Pemberton J.H.; Wolff B.G.; Young-Fadok T.; Harmsen W.S.; Schleck C.D.; Sandborn W.J.

Source: American Journal of Gastroenterology; May 2004; vol. 99 (no. 5); p. 878-883

Publication Date: May 2004

Available in full text at American Journal of Gastroenterology, The - from ProQuest

Abstract:AIM: The aim was to determine whether the use of steroids, immunosuppressive agents, or infliximab prior to abdominal surgery for Crohn's disease is associated with an increased rate of early postoperative complications. METHODS: All patients who underwent abdominal surgery for Crohn's disease between October 1998 and December 2001 were identified. Medical records were abstracted for demographics, location and duration of disease, use of infliximab within 8 wk before and 4 wk after surgery, and dose and duration of corticosteroids, azathioprine/6-mercaptopurine, and methotrexate. Steroid use was defined as: high (intravenous or oral >40 mg/day), moderate (oral >20 mg/day for at least 2 months), low (oral 20 mg/day for <2 months), or none. Early (within 30 days postinfliximab) septic and nonseptic complications were identified. Septic complications included wound sepsis, intraabdominal, and extraabdominal infections. Nonseptic complications included Crohn's disease recurrence, small bowel obstruction, gastrointestinal bleeding, and thromboembolism. A logistic regression analysis assessed the association between perioperative therapy with infliximab, corticosteroids, or immunosuppressive therapy and subsequent occurrence of septic complications and separately overall complications. RESULTS: Two hundred and seventy

patients were operated upon including 107 patients who received steroids (34 low dose, 34 moderate dose, 43 high dose), 105 patients who received immunosuppressives (64 azathioprine, 38 6-mercaptopurine, 4 methotrexate), and 52 who received infliximab. Forty-eight patients underwent urgent or emergent surgery and 222 underwent elective surgery. Septic complications occurred in 52 of 270 (19%) patients including wound sepsis in 28 (10%), anastomotic leak in 9 (3%), intraabdominal abscess in 5 (2%), and extraabdominal infections in 19 (7%). Nonseptic complications occurred in 18 of 270 (7%) patients. Preoperative use of high- or moderate-dose steroids, immunosuppressives, or infliximab was not associated with greater complication rates. No deaths occurred. CONCLUSION: Early complications after elective abdominal surgery for CD are not associated with steroid dose, immunosuppressive therapy, or infliximab use.

Database: EMBASE

The risk of post-operative complications associated with infliximab therapy for Crohn's disease: A controlled cohort study

Author(s): Marchal L.; D'Haens G.; Van Assche G.; Vermeire S.; Noman M.; Ferrante M.; Hiele M.; Bueno De Mesquita M.; Rutgeerts P.; D'Hoore A.; Penninckx F.

Source: Alimentary Pharmacology and Therapeutics; Apr 2004; vol. 19 (no. 7); p. 749-754

Publication Date: Apr 2004

Available in full text at Alimentary Pharmacology and Therapeutics - from John Wiley and Sons

Abstract: Background: By temporarily suppressing the immune response, the anti-tumour necrosis factor agent, infliximab, may increase the risk of peri-operative complications. Aim: To test this hypothesis for intestinal resection in a cohort of 313 Crohn's disease patients treated with infliximab. Forty received one or more infusions prior to intestinal resection (31/40 within 12 weeks). Methods: The post-operative events of these patients were compared with those of a control group (infliximab naive) of 39 patients adjusted for age, gender and surgical procedure. Early (10 days) and late (3 months) major or minor complications were identified. Results: The incidence of early minor (15.0% vs. 12.8%) and major (12.5% vs. 7.7%) and late minor (2.5% vs. 5.1%) and major (17.5% vs. 12.8%) complications and the mean hospital stay after surgery (10.3 +/- 4.0 days vs. 9.9 +/- 5.5 days) were similar in both groups. A trend towards an increased early infection rate was found in infliximab pre-treated patients (6 vs. 1: P = 0.10), but more patients in this group received corticosteroids and/ or immunosuppressives (29 vs. 16 patients; P < 0.05). Conclusion: The use of infliximab before intestinal resection does not prolong the hospital stay and does not increase the rate of post-operative complications.

Database: EMBASE