



Extraintestinal Manifestations and Complications of IBD

Audrey Williamson
Nurse Clinician, Inflammatory Bowel
Disease Clinic
Hôpital du Saint-Sacrement et de l'Enfant-
Jésus



Objectives

- To become familiar with the extraintestinal manifestations of IBD.
- To understand the physiopathology of these manifestations.
- To become familiar with the treatments available for these manifestations.



Most Common Dermatologic Manifestations

- Aphthous ulcers
- Pyoderma gangrenosum
- Erythema nodosum
- Psoriasis
- Hidradenitis suppurativa



Rare Dermatologic Manifestations

- Sweet's syndrome
- Neutrophilic dermatosis of the dorsal hands
- Leukocytoclastic vasculitis
- Sneddon-Wilkinson disease
- Acquired epidermolysis bullosa
- Linear IgA dermatosis
- Metastatic Crohn's disease
- Orofacial granulomatosis



Hepatobiliary Manifestations

- Sclerosing cholangitis
- Drug-induced hepatotoxicity
- Steatosis
- Cholelithiasis (gallstones)
- Granulomatous hepatitis
- Liver abscess
- Pancreatitis
- Primary biliary cirrhosis



Ophthalmologic Manifestations

- Uveitis
- Scleritis
- Episcleritis

Most Common Pulmonary Manifestations

- Parenchymal lung disease
- Interstitial lung disease
- Sarcoidosis
- Pulmonary infiltrates with eosinophilia


Rare Pulmonary Manifestations

- Necrobiotic nodules
- Serositis

Rheumatologic Manifestations

- Peripheral arthritis:
- Joints
- Axial episodes:
- Sacroiliitis
- Spondyloarthritis


Aphthous Ulcer



- Common manifestation of IBD
- 4-20% of IBD patients will present with this symptom
- Heals in 5-7 days
- **Causes**
- Neutrophils and chronic inflammation (histiocytes and lymphocytes) in the superficial stroma

Eisenberg E. Oral Maxillofacial Surg Clin N Am 2003
Leshage JA, McCarty MA, Jortzo JL. J Am Acad Dermatol 2005
Tosti A, Micali S. J Dermatol 2005


Aphthous Ulcer



- **Treatment**
- Local anesthetic
- Local and systemic corticosteroids
- Antiallergic drugs (Amlexanox 5%)
- Antibiotics (Dapsone for 3-6 months)
- Anti-inflammatory drugs (Colchicine for 3-6 months)
- 5-ASA
- Immunomodulators: Thalidomide
- Pentoxifylline


Eisenberg E. Oral Maxillofacial Surg Clin N Am 2003
Leshage JA, McCarty MA, Jortzo JL. J Am Acad Dermatol 2005
Tosti A, Micali S. J Dermatol 2005

Pyoderma Gangrenosum




- Affects 1-5% of IBD patients
- Most challenging extraintestinal manifestation
- Pyoderma activity often does not parallel the intestinal inflammation
- A purplish ulcer with a well defined raised border
- Lesions are very painful
- **Causes**
- Typically, a sterile abscess with significant neutrophil infiltration, hemorrhagic and necrotic areas and small vein thrombosis.

Milic J, Yentzer BA, Clark A, Jortzo JL. J Am Acad Dermatol 2010
Pasque V, Mar J, Brassard A. J Cutan Surg 2009
Rupus Z, Grange F. Am J Clin Dermatol 2007




Pyoderma Gangrenosum




- **Possible treatments:**
- **Mild cases:** topical therapy: corticosteroids, Tacrolimus, intralesional therapy: corticosteroids
- **Moderate cases:** Tapering doses of prednisone per os
- **Severe cases:** Anti-TNFs, Dapsone (ATB), corticosteroids, immunomodulators (6-MP, MTX), CellCept, immunoglobulins, cyclosporine

Miles J, Yankeel BA, Clark A, Jorizzo AJ. J Am Acad Dermatol 2013
Pajouhi V, Man J, Brassard A. J Cutan Surg 2009
Rappo Z, Grange F. Ann J Clin Dermatol 2007




Erythema Nodosum




- Most common cause of inflammatory nodules on the legs
- Most common cutaneous manifestation of IBD: 10% of IBD patients have it
- Unrelated to the severity of the IBD
- Sudden onset, often accompanied by fever, synovitis and arthritis
- Multiple, bilaterally symmetrical erythematous nodules on the anterior surface of the legs, accompanied by warmth and pain
- Initially brown but progresses to blue
- No ulceration

Calabrese L. Curr Opin Rheumatol 1991
Falkowit C, De Simone C, Amorico P. Eur Rev Med Pharmacol Sci 2009
Trotter LB, McDermott JK. Postgrad Med J 2005




Erythema Nodosum




- **Causes**
- Subcutaneous infiltration of neutrophils, lymphocytes and histiocytes
- **Treatment**
- Pressure, elevation, rest and NSAIDs (use cautiously with IBD)
- Prednisone per os, ATB, 5-ASA, immunomodulators, anti-TNFs

Calabrese L. Curr Opin Rheumatol 1991
Falkowit C, De Simone C, Amorico P. Eur Rev Med Pharmacol Sci 2009
Trotter LB, McDermott JK. Postgrad Med J 2005




Psoriasis




- The prevalence of psoriasis in the general population is 2%, 10% in patients with Crohn's disease.
- Arthritis is associated in 30% of cases.
- **Causes**
- Keratinocyte hyperproliferation, hyperkeratosis, parakeratosis, abnormal dilation of and increase in the dermal veins with dermal and epidermal leukocyte infiltration resulting in the production of microabscesses

Mentzer A, Korman NJ, Elmets CA, Feldman SR, Gelfand JM, Gordon KB, et al. J Am Dermatol 2009
Schon MP, Boehncke WH. N Engl J Med 2001




Psoriasis




- **Treatment**
- Topical corticosteroids
- Methotrexate
- Retinoids (Accutane)
- Cyclosporine
- Anti-TNFs
- IL-12, IL-23 (Ustekinumab)

Mentzer A, Korman NJ, Elmets CA, Feldman SR, Gelfand JM, Gordon KB, et al. J Am Dermatol 2009
Schon MP, Boehncke WH. N Engl J Med 2001




Hidradenitis Suppurativa




- 40% of patients with hidradenitis suppurativa have Crohn's disease
- A chronic, recurrent inflammation caused by occlusion of the hair follicles
- Lesions occur primarily in the armpits, anus and neck and below the breasts

Alkman A, Lynch PJ, Eizen OB. J Am Acad Dermatol 2009
Dunley FW, Margesson LJ. Dermatol Clin 2010




Hidradenitis Suppurativa




- **Causes**
- Formation of abscesses and destruction of the pilosebaceous unit with formation of sinus tracts and massive inflammatory granulomatous and suppurative infiltration and fibrosis
- **Treatment**
- Topical ATBs, per os
- Retinoids (isotretinoin)
- Anti-TNFs
- Surgery

Alkhan A, Lynch PJ, Eskin DB, J Am Acad Dermatol 2009
Duffy RW, Margolin LJ, Dermatol Clin 2010




Sclerosing Cholangitis




- Up to 90% of patients with primary sclerosing cholangitis (PSC) also have ulcerative colitis (UC)
- Fewer than 10% of patients with UC have PSC
- Although the relationship between PSC and UC is suggestive of a possible shared pathogenesis, the two conditions can occur at different times
- Approximately 70% of PSC patients are male, with a mean age of 40 years at diagnosis

Ossien R, Donatson A, Jannet G, et al. Gastroenterology 1991; 100:1319




Sclerosing Cholangitis




- PSC can also occur in Crohn's disease, especially with involvement of the colon
- **Causes**
- The close relationship between PSC and UC (a known autoimmune disease) suggests an autoimmune process
- Inflammation affecting the bile ducts, leading to stenosis and, in turn, cholestasis.

Ossien R, Donatson A, Jannet G, et al. Gastroenterology 1991; 100:1319




Sclerosing Cholangitis




- **Prognosis and Complications**
- Earlier diagnosis age
- More significant mortality
- Liver transplantation more common
- 10-15% lifetime risk of developing cholangiocarcinoma
- 5% risk of developing gallbladder cancer
- 4.8 times higher risk of developing colon cancer than UC patients with no PSC
- Bone complications (cholestasis, vitamin ADEK malabsorption)
- 6% risk of cholangitis
- Increased risk of cirrhosis
- Pruritus

Nau JP et al. Clin Gastroenterol Hepatol 2011
Lichtenhan DR et al. Curr Gastroenterol Rep 2011
Bressan GP et al. Am J Gastroenterol 2002




Sclerosing Cholangitis




- **Treatment**
- Corticosteroids or immunomodulators if associated autoimmune hepatitis (overlap syndrome)
- Bile duct reconstruction
- Proctocolectomy
- Liver transplantation

Angeli P, Lindor KD. Primary sclerosing cholangitis. Hepatology 1999; 30:325.
Chapman R, Favey J, Kelloo A, et al. Diagnosis and management of primary sclerosing cholangitis. Hepatology 2010; 51:895.
Eshwar FE, Collet LM, Koo JA. The changing role of surgery for sclerosing cholangitis. Dig Dis 1996; 14:180.




Sclerosing Cholangitis



- **Prevention**
- Long colonoscopy with multiple biopsy sampling at diagnosis and every 1-2 years thereafter
- Annual ultrasound to detect mass lesions in the gallbladder
- Cholecystectomy in patients with mass lesions, regardless of lesion size
- Evaluation for cholangiocarcinoma if deterioration of overall health or liver parameters (CA 19-9 tumor marker, MRI, ERCP)
- Bone density examinations at diagnosis and every 2-3 years thereafter

Angeli P, Lindor KD. Primary sclerosing cholangitis. Hepatology 1999; 30:325.
Chapman R, Favey J, Kelloo A, et al. Diagnosis and management of primary sclerosing cholangitis. Hepatology 2010; 51:895.
Eshwar FE, Collet LM, Koo JA. The changing role of surgery for sclerosing cholangitis. Dig Dis 1996; 14:180.

Drug-Induced Hepatotoxicity




- Most drugs used in medical therapy for inflammatory bowel disease have been associated with liver toxicity, although the overall incidence of serious complications is low.
- Signs and Symptoms**
 - Anorexia (loss of appetite)
 - Significant weight loss
 - Right hypochondrial pain (area below the right rib cage), sometimes acute
 - Asthenia (significant fatigue)
 - Hyperthermia of about 38-39° C, sometimes lasting several months
 - Vomiting with blood
 - Allergic symptoms (skin rash, fever, joint pain, abnormally enlarged or painful lymph nodes)
 - Elevated AST, ALT, bilirubin

Stricker BH, Elveback 1992
Gubert JP, Lara M, Gonzalez-Lara Y, et al. *Inflamm Bowel Dis* 2007; 13:1106


Drug-Induced Hepatotoxicity

- Drugs that can induce hepatotoxicity**
 - Sulfasalazine
 - Azathioprine
 - 6-MP
 - Methotrexate
 - Infliximab
- Treatment**
 - Discontinue medication
 - Supportive treatment (symptoms)



Kramer JM. *Am J Gastroenterol* 1997; 92:194
Csis T. *Pharmacol Drug Administration* 2010
Tobert DJ, Carver C, Jaller JJ, et al. *Clin Rheumatol* 2007; 28:578
Koradi EC, Durrig T, Riederer M, et al. *Inflamm Bowel Dis* 2006; 12:1089
Aizer T, Mizrahi M, Pappo D, et al. *J Clin Gastroenterol* 2010; 44:e20
Hegel S, van T, Thiel S, et al. *Int J Clin Pharmacol Ther* 2011; 40:98

Steatosis




Hepatic Steatosis

- Steatosis, or fatty liver disease
- 50% of liver biopsies are abnormal in IBD patients
- Signs and Symptoms**
 - Hepatomegaly (enlarged liver)
- Causes**
 - Malnutrition
 - Corticoids and methotrexate
 - Severity of the disease
- Treatment**
 - Treat the causes: Malnutrition, overweight
 - Optimize IBD Tx

Callwell SH, Orrego DM. *J Hepatol* 2004; 40:578
Raffi N, Bai C, Fang Y, et al. *Clin Gastroenterol Hepatol* 2009; 7:224


Cholelithiasis



- Gallstones are visible in 13-34% of patients who have ileitis or have undergone ileal resection.
- Causes**
 - They are caused by bile acid malabsorption, which disturbs their enterohepatic circulation. This in turn leads to the depletion of bile salts and the production of lithogenic bile.

Pavoni F, Passoli L, Bergagna S, et al. *Hepatology* 2007; 45:1267
Maurer P, Haug K, Roth M, et al. *Neurogastroenterology* 1996; 43:807
Mito S, Matsui I, Ohjima K. *J Gastroenterol* 1995; 30:413


Cholelithiasis



- Signs and Symptoms**
 - Feeling of pressure and fullness in the upper abdomen, especially after drinking coffee or alcohol and consuming fatty food
 - Nausea, vomiting, flatulence
- Treatment**
 - Bile acid therapy (URSO)
 - Statins
 - Ezetimibe (cholesterol-lowering agent)
 - Cholecystectomy (if symptomatic)

Pavoni F, Passoli L, Bergagna S, et al. *Hepatology* 2007; 45:1267
Maurer P, Haug K, Roth M, et al. *Neurogastroenterology* 1996; 43:807
Mito S, Matsui I, Ohjima K. *J Gastroenterol* 1995; 30:413


Pancreatitis



- Pancreatitis affects 1-3% of IBD patients
- Causes**
 - Duodenal fistulas
 - Gallstones
 - Primary sclerosing cholangitis (CSP)
 - Drugs: 6-MP, azathioprine (main cause)
 - Autoimmune pancreatitis
 - Primary pancreatic Crohn's disease

Bernajo F, Lopez-Sanroman A, Tazonera C, et al. *Aliment Pharmacol Ther* 2008; 91:967


Pancreatitis



- Symptoms**
- Sudden, severe, persistent, epigastric pain, often radiating to the back
- Elevation of serum lipase or amylase levels (to three times greater than the upper limit of normal)
- Results characteristic of acute pancreatitis on imaging (CT, MRI, transabdominal ultrasound)
- Treatment**
- Find the underlying cause
- Supportive care: pain management, intravenous fluids and correction of electrolytic and metabolic abnormalities. Most patients do not require additional treatment.

Bernardi F, Lopez-Sarraman A, Tasciuna C, et al. Aliment Pharmacol Ther 2008; 31:987

Primary Biliary Cirrhosis

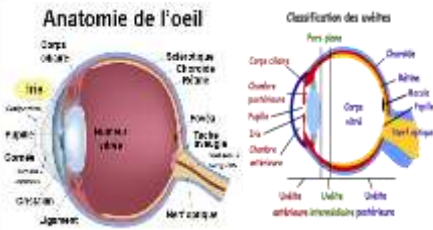


- Gradual inflammatory destruction of the interlobular and septal bile ducts through cholestasis which can progress to cirrhosis
- Multiple cases of PBC in ulcerative colitis
- Features of these two autoimmune diseases and their shared association with certain HLA haplotypes suggest a similar genetic predisposition.
- Treatment**
- Treatment of symptoms and complications resulting from chronic cholestasis
- URSO

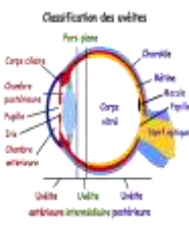
Hsu WB, Liu YL. World J Gastroenterol 2003; 9:878
Kobayashi M, Kuroki M, Ito T, et al. Dig Dis Sci 1999; 44:1963
Hsu WB, Hsu H, Hsu H, et al. Hepatobiliary Pancreat Disord 2001; 10:300
Origa S, Takekawa Y, Yokoyama T, et al. J Gastroenterol 2000; 35:870

Anatomy of the Eye [translated in next slide]

Anatomie de l'oeil




Classification des uveïtes



Anatomy of the Eye [translation of previous slide]

Anatomy of the Eye		Classification of Uveitis		
Ciliary body	Sclerotic	Pars planitis		
Iris	Choroid	Ciliary body		Choroid
Conjunctiva	Retina	Posterior chamber		Retina
Pupil	Vitreous humor	Pupil	Vitreous body	Macula
Cornea	Fovea	Iris		Papilla
Aqueous humor	Blind spot	Anterior chamber		Optic nerve
Crystalline lens	Blood vessels	Anterior uveitis	Intermediate uveitis	Posterior uveitis
Ligament	Optic nerve			


Uveitis



- Occurs in 0.5-3% of patients with IBD
- Consequences are serious
- Uveitis is often bilateral,
- Posterior to the lens
- Insidious onset
- Chronic duration
- 4 times more common in women than men
- Approximately 75% of patients have associated axial and/or peripheral arthritis
- Symptoms**
- Eye pain
- Blurred vision
- Photophobia (light sensitivity)
- Headache

Lyns JE, Rosenbaum JT. Arch Ophthalmol 1997; 115:81
Suhler EB, Smith JR, Werthman MS, et al. Arch Ophthalmol 2005; 123:903


Uveitis



- Causes**
- Slit-lamp examination reveals anterior chamber inflammation with perilimbal edema, cells and protein. Corneal opacification and conjunctival injection may also be present.
- The course of the uveitis may not correlate to the IBD activity. Secondary glaucoma and, in rare cases, blindness may result.
- Treatment**
- Topical or systemic steroids
- Scopolamine (0.25%) or cyclopentolate (1%) may help to relieve spasms
- Infliximab may be effective in patients with refractory disease

Lyns JE, Rosenbaum JT. Arch Ophthalmol 1997; 115:81
Suhler EB, Smith JR, Werthman MS, et al. Arch Ophthalmol 2005; 123:903


Episcleritis/Scleritis



- **Episcleritis**
- Episcleritis is inflammation of the episclera, a layer of vessels on the surface of the sclera, below the bulbar conjunctiva.
- **Scleritis**
- A much more serious condition, scleritis is inflammation of the sclera itself. If severe and untreated, it could lead to scleral thinning and even ocular perforation.

Parikh EA, McGilley M, Troncale FJ. Ann Ophthalmol 1982; 14:356


Episcleritis/Scleritis



- Occurs in nearly 2-5% of patients with IBD
- **Symptoms**
- Asymptomatic
- Burning
- Itching
- Injection of the ciliary vessels and inflammation of the episcleral tissues are the prominent features on physical examination; episcleral nodules may also be present.
- **Treatment**
- Treatment of the underlying IBD
- Topical glucocorticoids
- Systemic cortisone therapy

Parikh EA, McGilley M, Troncale FJ. Ann Ophthalmol 1982; 14:356


Pulmonary Embolism



- IBD patients may have an increased risk of venous thromboembolism (VTE)
- It is thought that patients with IBD have several risk factors for hypercoagulability, although no particular laboratory test has sufficient predictive value to identify patients at increased risk
- IBD patients have up to a threefold risk of pulmonary embolism
- 80% of IBD patients had active disease

Black H, Mendosa M, Muris S. Chest 2007; 131:254
Solem CA, Loftus EV, Tremaine WJ, Sandborn WJ. Am Gastroenterol 2004; 99:97
Bardhan D, Jakowitsch J, Adreych C, et al. Thromb Haemost 2005; 93:512
Kovvuraman MD, Hovvath-Dobry E. Scand J Clin Lab 2011; 60:107

Pulmonary Embolism




- **Treatment**
- Anticoagulation
- Filter
- In IBD patients, the choice of treatment of acute pulmonary thromboembolism depends on the expected risk of gastrointestinal bleeding
- For patients with active IBD, especially with significant bleeding, an **inferior vena cava filter** is usually inserted and **anticoagulation** deferred until the IBD is under control
- If the patient is not deemed to be at increased risk for gastrointestinal bleeding, the usual guidelines for anticoagulation with **heparin** and **warfarin** are followed
- The risk of installing a filter is being unable to remove it subsequently. This means the patient must be anticoagulated for life because there is a foreign body.

Black H, Mendosa M, Muris S. Chest 2007; 131:254
Solem CA, Loftus EV, Tremaine WJ, Sandborn WJ. Am Gastroenterol 2004; 99:97
Bardhan D, Jakowitsch J, Adreych C, et al. Thromb Haemost 2005; 93:512
Kovvuraman MD, Hovvath-Dobry E. Scand J Clin Lab 2011; 60:107

Type I Acute Peripheral Arthritis: Joints


- Affects men and women, adults and children equally
- 5% of IBD cases
- Coincides with or occurs before the onset of IBD
- UC + Crohn's
- Often associated with an IBD flare
- Affects fewer than 5 joints
- Affects large joints
- Primarily affects the lower extremities: ankles, knees
- Nonerosive and nondeforming
- Average duration of flare-up: 6 weeks
- **Treatment**
- Optimize IBD Rx



A. Turcotte 19-4-2012

Type II Chronic Peripheral Arthritis: Joints

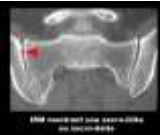
- Affects men and women, adults and children equally
- Affects 3-4% of IBD patients
- Occurs after IBD diagnosis
- Course does not parallel that of the IBD
- Primarily affects the hands
- Affects the small joints
- Generally nonerosive
- Duration: several months, frequent relapses (flare-ups and remissions)
- **Treatment**
- NSAIDs: Use with care in active IBD, possible exacerbation of underlying IBD
- Infusions
- Rheum. Rx: Sulfasalazine, MTX, Anti-TNFs



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Axial Episodes: Sacroiliitis

- Isolated sacroiliitis
- Prevalence: 5-12%
- Treatment**
- Exercise, physiotherapy
- NSAIDs/Coxibs (depending on IBD activity)
- Infusions
- Anti-TNFs




MRI showing sacroiliitis/sacroiliitis

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Axial Episodes: Spondylitis

- 1-26% of IBD patients
- 1-25% of carriers for Crohn's disease
- 2-7% of carriers for ulcerative colitis
- Affects 3 times more men than women
- Can start several years before IBD
- Does not parallel IBD activity
- Treatment**
- Exercise, physiotherapy
- NSAIDs/Coxibs (depending on IBD activity)
- Infusions
- Anti-TNFs



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Incidence of Selected EIMs at Baseline and Week 20 in CARE: LOCF Analysis*

EIM	Baseline (N=945) n (%)	Week 20 (N=945) n (%)
• Arthralgia	445 (47.1)	252 (26.8) [†]
• Arthritis	82 (8.7)	20 (2.1) [†]
• Oral aphthous ulcers	49 (5.2)	20 (2.1) [†]
• Sacroiliitis	34 (3.6)	18 (1.9) [‡]
• Erythema nodosum	23 (2.4)	4 (0.4) [†]
• Ankylosing spondylitis	16 (1.7)	15 (1.6) [§]
• Nephrolithiasis	8 (0.8)	8 (0.8) [§]
• Iritis	7 (0.7)	2 (0.2) [†]
• Pyoderma gangrenosum	4 (0.4)	2 (0.2) [†]
• Uveitis	3 (0.3)	3 (0.3) [§]
• Hepatic disease	1 (0.1)	1 (0.1) [§]

* Percentages are calculated on nonmissing values; 3 patients had missing data at Week 20.
[†] p<0.001 vs. baseline (sign test).
[‡] p<0.016 vs. baseline (sign test).
[§] Incidence too small for comparison.

Source: Louis E et al. Journal of Crohn's and Colitis Supplements. 2009;3:557-558. Poster Presentation P118 at 4th European Crohn's & Colitis Organisation ECCO 4th Meeting, 5-7 February 2009, Hamburg, Germany.
 Louis E, et al. Gastroenterology 2009;136(Suppl 1):A-196. Poster Presentation of Abstract S1131 at Digestive Disease Week, 31 May 2009, Chicago, IL.

Resolution of at Least 1 of the EIMs Present at Baseline*: Stratified by HBI Remission at Week 20

Stratification	Time Point	EIMs Resolved (%)	EIMs Not Resolved (%)
In Remission at Week 20	Week 12	85	15
	Week 20	88	12
Not in Remission at Week 20	Week 12	68	32
	Week 20	75	25

* n=412 patients (238 in remission at Week 20, 174 not in remission at Week 20) with nonmissing follow-up data; LOCF analysis.

Source: Louis E et al. Journal of Crohn's and Colitis Supplements. 2009;3:557-558. Poster Presentation P118 at 4th European Crohn's & Colitis Organisation ECCO 4th Meeting, 5-7 February 2009, Hamburg, Germany.
 Louis E, et al. Gastroenterology 2009;136(Suppl 1):A-196. Poster Presentation of Abstract S1131 at Digestive Disease Week, 31 May 2009, Chicago, IL.

Resolution of at Least 1 of the EIMs Present at Baseline*: Stratified by Prior Infliximab Use

Stratification	Time Point	EIMs Resolved (%)	EIMs Not Resolved (%)
Anti-TNF-Naive	Week 12	77	23
	Week 20	82	18
Infliximab-Experienced	Week 12	73	27
	Week 20	76	24

* n=495 patients (252 anti-TNF-naive, 243 infliximab-experienced) with nonmissing follow-up data; LOCF analysis.

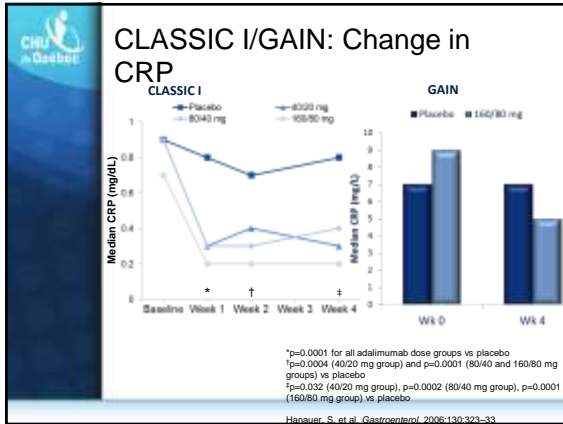
Source: Louis E et al. Journal of Crohn's and Colitis Supplements. 2009;3:557-558. Poster Presentation P118 at 4th European Crohn's & Colitis Organisation ECCO 4th Meeting, 5-7 February 2009, Hamburg, Germany.
 Louis E, et al. Gastroenterology 2009;136(Suppl 1):A-196. Poster Presentation of Abstract S1131 at Digestive Disease Week, 31 May 2009, Chicago, IL.

Complete Absence of Any EIM: Combined Adalimumab Groups vs. Placebo (NRI Analysis)^a

Stratification	Time Point	Complete Absence (%)	Not Complete Absence (%)
Placebo	Week 26	8.4	91.6
	Week 56	7.7	92.3
Adalimumab (50mg/Week)	Week 26	29.4	70.6
	Week 56	23.7	76.3

^a NRI for EIM assessment for patients who dropped out or moved to open-label therapy. The placebo group also received open-label adalimumab induction therapy (80 mg/40 mg at week 0/2).

Source: Schwartz D, et al. Am J Gastroenterol. 2009;104(Suppl 3):S465. Poster Presentation P1128 of Abstract #1244 at the 74th Annual Scientific Meeting of the American College of Gastroenterology, October 14-18, 2009, San Diego, CA.



Conclusion

- Extraintestinal manifestations of IBD affect numerous patients. It is important to assess a patient holistically, rather than just diagnostically.

Any questions?