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Gastroenterology & Hepatology
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Extraintestinal Manifestations in IBD

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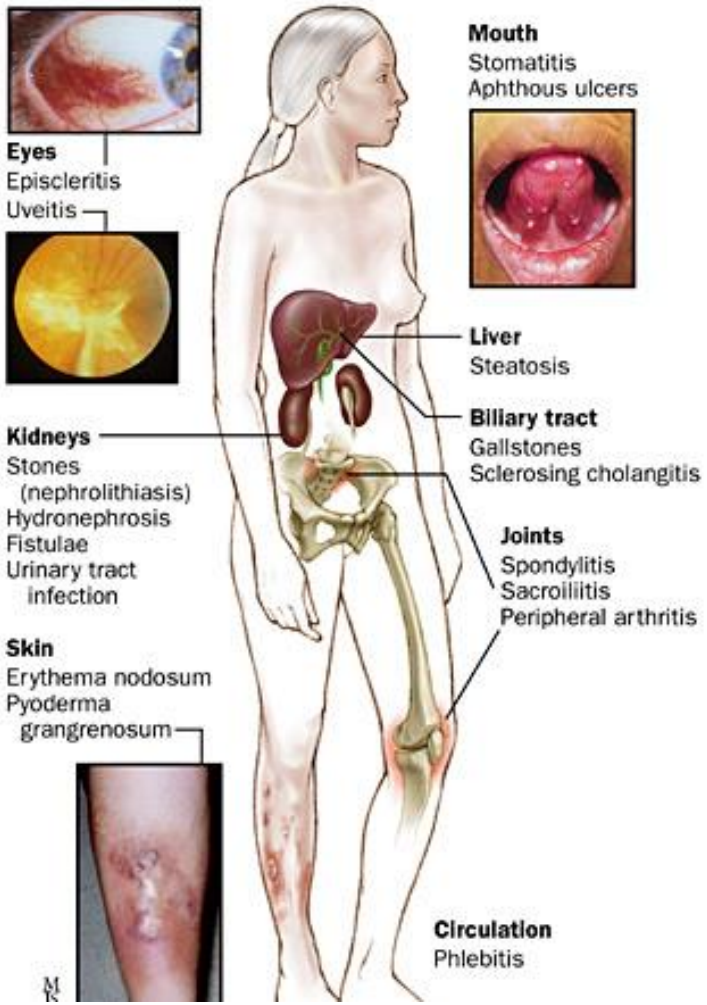
Disclosures

- **Amanda Wilhite, MPAS, PA-C**
  - Speakers Bureau: AbbVie, Clinical Area- IBD

EIMs in Inflammatory Bowel Disease

- Incidence: > **1/3** (6% to 47%)
- 1 EIM → higher risk of developing others
- Pathogenesis not well understood



Vavricka SR. *Inflamm Bowel Dis.* 2015; Ott & Scholmerich. *Nat Rev Gastroenterol Hepatol*. 2013;10:585-95.

Case Study

A 26 year old gentleman with Crohns disease (CD) presents with a painful right eye, severe photophobia, and tearing in the right eye x 2 days. He has attempted OTC allergy drops without relief. Referral to ophthalmology confirms acute anterior uveitis. Prednisolone Acetate and Homatropine are prescribed. The patients CD had initially been controlled with a tapering course of Prednisone but the patient now complains of increasing symptoms.

What is the next step in managing this patient's IBD?

Testing/Results

- Testing – CBC, CMP, stool cultures, ESR, CRP, fecal calprotectin, recommend a colonoscopy
- Results of testing- fecal calprotectin >250, ESR 35, CRP 4.0, HGB – 12.0, HCT – 37.0, colonoscopy results indicate moderate to severe active ileitis

Treatment

- Start on a steroid taper and initiate a biological anti-TNF
  - Adalimumab 160mg SC on day 1, then 80mg SC on day 15, then 40mg SC every 2 weeks thereafter

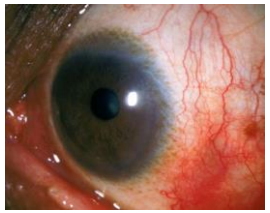
Treatment Options

- Options for the treatment of CD and acute anterior uveitis
  - Cyclosporine, thiopurines, methotrexate, sulfasalazine, biological anti-TNF therapies (infliximab and adalimumab)

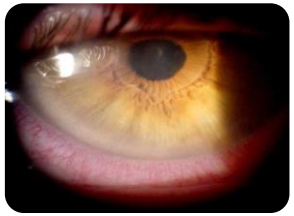
Patient Follow-Up

- Patient Care
  - Short-term plan
    - Follow up with ophthalmology as directed. Repeat lab work including drug and antibody levels after final loading dose. RTV in 3 months depending on patients course.
  - Long-term plan
    - Once CD is in remission, office visit every 6 months with blood work including CBC, liver panel, and inflammatory markers.

Ocular Manifestations in IBD



- **<u>Episcleritis:</u>** painless hyperemia of conjunctiva and sclera
- **<u>Without</u>** visual changes
- **<u>Parallels with disease course</u>**
- **Treatment:**
  - Treat underlying IBD
  - Topical treatments: anti-inflammatories, steroids, lubricants
- **Consider referral to Ophthalmology**



- **<u>Uveitis:</u>** inflammation of the middle layer of the eye (anterior uveitis = iritis)
- Independent of disease course
- Symptoms: **<u>blurry vision, pain,</u>** photophobia, redness/floaters
- Diagnosis: Slit-lamp examination
- **Treatment:**
  - Topical steroids or infections
  - Oral or IV steroids
  - Immunosuppression for refractory cases
- Untreated disease can lead to permanent visual defects!
- **REFERRAL TO OPTHALMOLOGY!**

Case Study

- 52-year-old woman with penetrating ileo-colonic CD presents with increased number of loose stools and erythema nodosum
- She was treated with 6-MP after an anastomotic resection for recurrent CD in 2012, but developed pancreatitis and refused a biologic at that time
- **What treatment would you recommend now?**

Erythema Nodosum

- Painful raised red to purple nodules
- Mostly occurs with disease activity
- Self-limited
- Lesions usually heal *without* scarring

UpToDate. Accessed 16 Jul. 2020.

Treatment

- Start on oral budesonide 9 mg or Medrol Dose Pack
- Treat underlying disease
  - Recommend to start biologic therapy (infliximab, adalimumab, certolizumab, ustekinumab, vedolizumab)

Patient Follow-Up

- Patient Care
  - **Short-term plan**
    - Start on budesonide or Medrol Dose Pack
    - Start approval for biologic therapy and initiate once patient is approved
  - **Long-term plan**
    - Continue to monitor patient with routine follow up, routine labs (ESR, CRP, CBC with diff, CMP, fecal calprotectin or lactoferrin) and eventually repeat colonoscopy to assess for healing on biologic therapy

Dermatologic EIMs: Pyoderma Gangrenosum

- Starts as a nodule/pustule, typically on the extensor surfaces/around stoma site
- Progresses to an ulcerating lesion **with** scarring
- Diagnosed on exam
  - Biopsies are not needed/recommended
- Can occur unrelated to disease activity
- **Treatment:**
  - Topical therapies
  - Oral or IV steroids
  - Wound care
  - Avoid surgical debridement!

Vavrika. *Inflamm Bowel Dis J*. 2015; *UpToDate*. Accessed 16 Jul. 2020.

Dermatologic EIMs: Psoriasis

- Independent or related to disease activity
- Palmoplantar psoriasis can occur from anti-TNF use
  - Discontinue anti-TNF if this occurs
  - Consider switching to ustekinumab for treatment of psoriasis + IBD
- Refer to dermatology to discuss topical or oral treatment

Dermatologic EIMs: Hair Loss

Most common causes:

- Active disease
- Nutritional deficiencies
  - Check vitamin D, vitamin B12, vitamin B6, folate and iron and zinc levels

Telogen Effluvium

- Decreased # of follicles producing hair
- Increased dormant hair follicles
- Shedding
  - Seen in chronic/active disease states
  - Usually transient

Autoimmune conditions associated with IBD:

- Alopecia areata
- Psoriasis-associated alopecia
- Drug-induced lupus

Aphthous Stomatitis

- More common with disease activity
- **Rule out Etiologies**
  - Stress
  - Acidic Foods – Citrus, tomatoes
  - Nutritional Deficiencies-check vitamin B12, folate, iron panel, zinc
  - Trauma – braces, dentures, “lip bite”
  - Viral Infection – HSV1
  - Celiac Disease
- **Treatment**
  - Topical lidocaine for pain
  - Triamcinolone with Orabase™ dental paste
  - Medrol Dose Pack

UpToDate. Accessed 16 Jul. 2020.

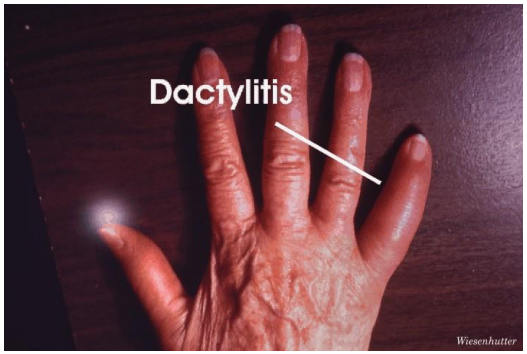
Musculoskeletal EIM: Peripheral Arthropathy

Type 1 (Pauci-articular)	Type 2 (Polyarticular)
<5 joints	≥5 joints
Asymmetric involvement	Persistent inflammation for months or even years
Lower limbs more affected	May be erosive
Self limited episodes that last < 10 wk	Affects both large and small joints
Usually concomitant IBD relapse	It can be symmetric or asymmetric
High frequency of other extraintestinal manifestations	Clinical course independent of IBD activity
	Associated with uveitis

Martinez-Reyes et al. 2009.

Peripheral Arthropathy

- Type I
  - Treatment for IBD will improve arthritis
  - Associated with HLA-B27, HLA B35, HLA DR103
  - Larger joints- knee most common
- Type II
  - Most common joints affected- metocarpopharyngeal
  - Associeated with HLA B44
  - COX 2 inhibitors

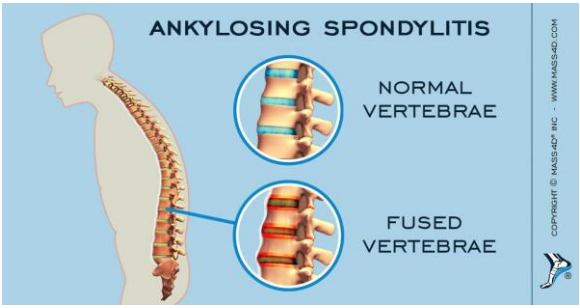


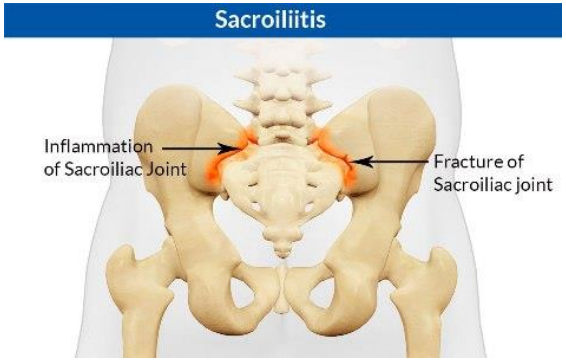
Lakatos et al. 2015.

Axial Arthropathy

- Independent of IBD activity
- 2 categories
  1. **<u>Ankylosing spondylitis</u>** (AS) – most patients are HLA B27 +, severe onset at young age, morning stiffness, progressive and can lead to permanent damage
  2. **<u>Sacroiliitis</u>** – most patients are HLA B27 -, most will not progress to AS
     - **Treatment** – Sulfasalazine, Mesalamine, Methotrexate, Azathioprine, Thalidomide, Anti-tumor Necrosis Factor (infliximab, Adalibumab)

Referral to Rheumatology!





Lakatos et al. 2015.

Other Musculoskeletal EIM's

Osteoporosis

- Inflammatory mediated bone resorption
- Ca-Mg malabsorption
- Decreased Ca intake-lactose intolerance
- Vitamin D deficiency
- Steroid use
- Decreased physical activity
- Decreased serum albumin

Osteonecrosis

- Complication from steroids
- Most common at the femoral head
- Younger patients on low dose steroids

Jenson et al. 2017.

Primary Sclerosing Cholangitis

- 70-80% of patients have IBD (mostly UC)
- 2-7% of UC patients have PSC
- **High risk of colon cancer**
  - Requires **ANNUAL** surveillance colonoscopies
  - Risk persists even after liver transplant
- Check LFTs periodically
  - First sign may be elevated alkaline phosphatase
- Higher risk of pouchitis

Nephrolithiasis: Calcium Oxalate

- Decreased bile acids can lead to gallstones and kidney stones (calcium oxalate)

- Ileal resection/disease →
- ↓ resorption of bile acids to enterohepatic circulation
- ↑ luminal free fatty acids
- Competitive binding of fatty acids to calcium
- Dietary oxalate complexes with sodium
- Oxalate is now soluble and absorbed in the colon
- Oxalate secreted in the kidney binds with calcium and forms insoluble complexes
- Precipitates to form a kidney stone

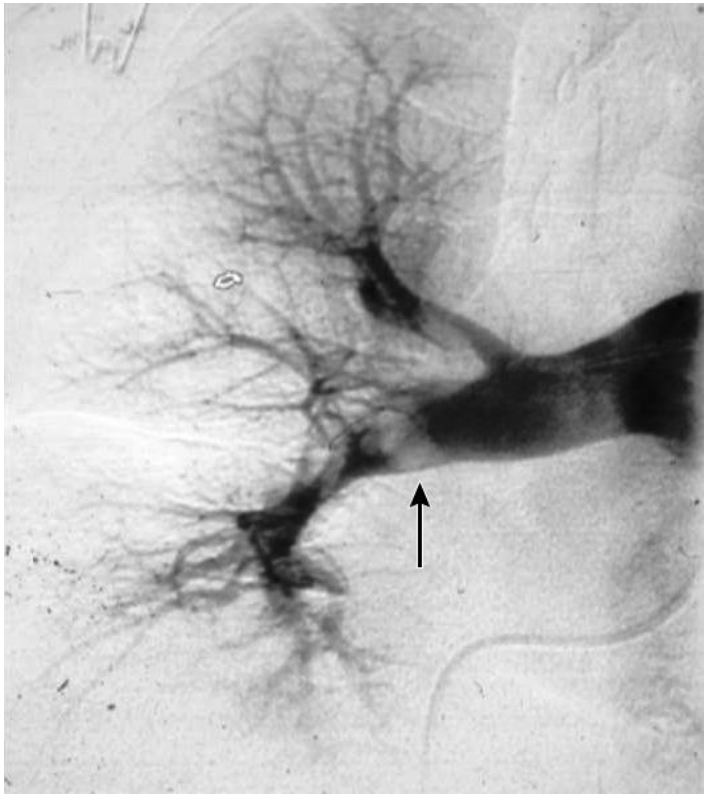
UpToDate. Accessed 30 Jul. 2020.

Nephrolithiasis Treatment

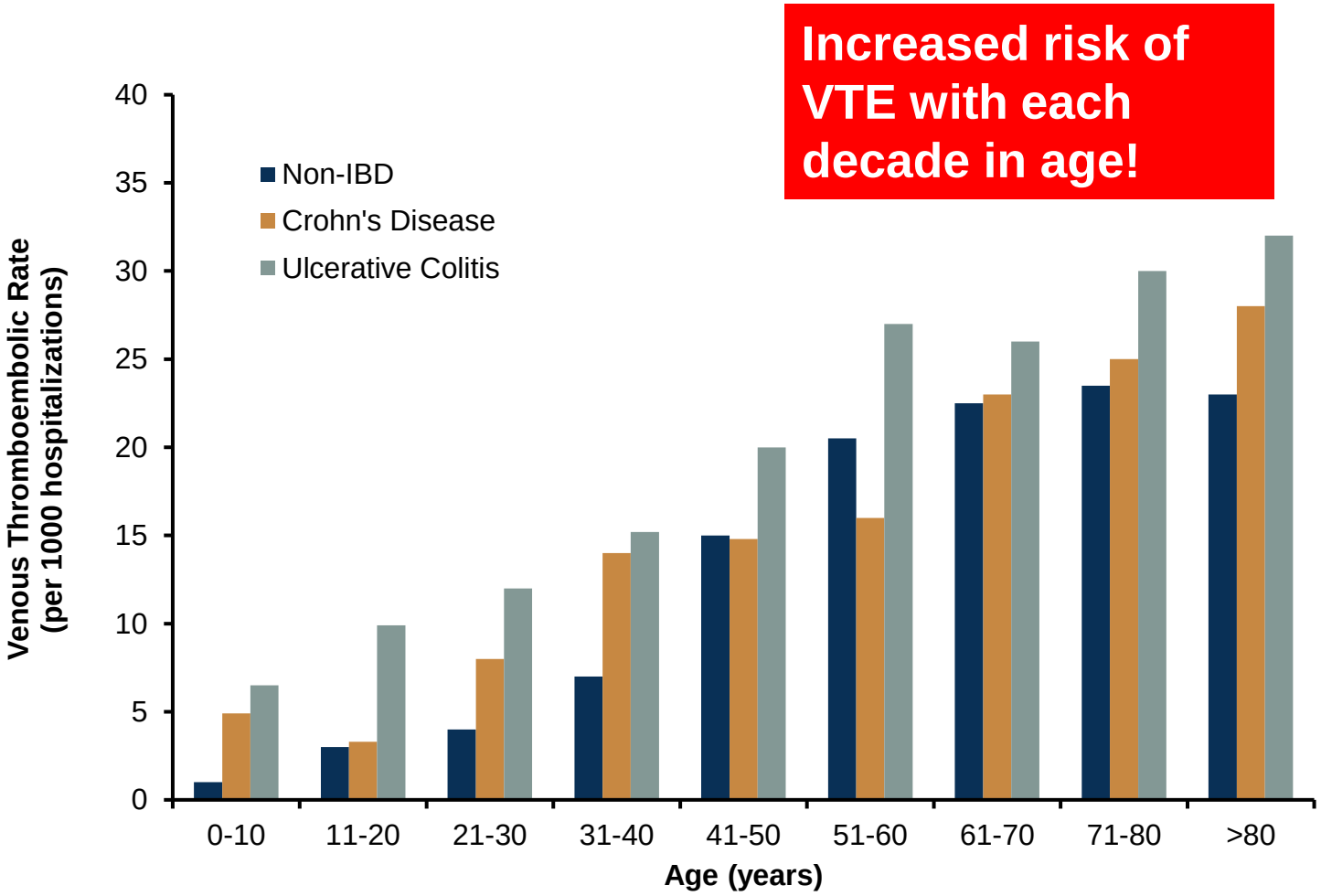
- High fluid intake >1.5 L
- Start OTC calcium citrate supplement
  - **Citrate binds to calcium and thus prevents it from binding to oxalate to form stones**
- Low oxalate, high calcium diet
- **Foods to avoid**
  - Soy milk or drinks
  - Nuts/nut butters
  - Whole wheat
  - Berries
  - Kale/Spinach
  - Carrots, celery, peppers
  - Soy sauce
  - Potatoes, sweet potatoes

Thromboembolism in IBD

- IBD is a hypercoaguable state
  - Increased platelet aggregation
  - Hypofibrinolysis
  - Increased homocysteine
- No known coagulation disorders are associated with IBD-related thrombosis
- Increased risk of both arterial and venous thromboembolic events
- Associated with high mortality
- Avoid the use of tofacitinib in patients with history of thromboembolic events



Thromboembolism in IBD



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Thank You!

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