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Ulcerative Colitis and Indeterminate Colitis

Ulcerative Colitis and indeterminate colitis

Pediatric Gastroenterology Clinic of South Texas

This review of the Ulcerative Colitis, it will take physicians and parents to a deeper understanding of this challenging and complex disease.
This guide need to be complemented with video and/or audio version for maximum learning

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Colitis (IBD)

- IBD Colitis (Crohn's disease, Ulcerative colitis and Indeterminate colitis)
- Are chronic Inflammation that require a clinical pathologic diagnosis which has biopsy, endoscopic and radiologic support

Ulcerative Colitis

- Inflammation is limited to the large bowel and usually start in the rectum and spread proximally.

Indeterminate Colitis

- Is a chronic inflammation limited to the colon that after a full investigation it cannot separated from Crohn's disease

Epidemiology

- Developed countries
- Adult UC >CD incidence varies 2.2 to 14.4 per 100.000 with up to 46.000 new cases per year
- Pediatric CD 60%> UC 40%> IC 5%
- UK and Ireland 5.2 per 100.000.
- USA higher prevalence is Minnesota;
- the incidence of IBD is increasing in previously low endemic areas in USA

Epidemiology

- CD has higher incidence.
- Sex slightly higher in males
- Age distribution.
  - 2 years 6% IBD no difference
  - 3-5 year 9% (47 % UC, 35% CD and 18% IC)
  - 6-12 year 47% (62% CD, 27% UC and 11% IC)
  - 13-17 year 36%

Etiology

- Family prevalence
- First degree relative
  - Twins
  - Appendicectomy
  - Diet and breast feeding
    - Sugar
    - Breast feeding

Etiology

- Stress
- Smoking
- Microbial factors
- Other bacteria
- Host and immune factors
  - Barrier factors
  - Mucosal immune cells
  - Other abnormal intestinal vasculature

Presentation and symptoms

- Chronic bloody diarrhea
- Abdominal pain
- Tenesmus
- Weight loss

Severity Score

Lichtiger or Truelove &witts score

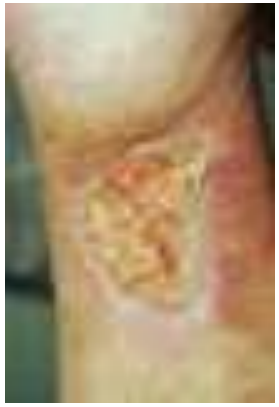
- ≥ 10 is severe disease

Diarrhea	**(0-4)**
Nocturnal diarrhea	**(0-1)**
Visible blood	**(0-3)**
Fecal incontinence	**(0-1)**
Abdominal pain	**(0-3)**
General well-being	**(0-5)**
Abdominal tenderness	**(0-3)**
Antidiarrhea drugs	**(0-1)**

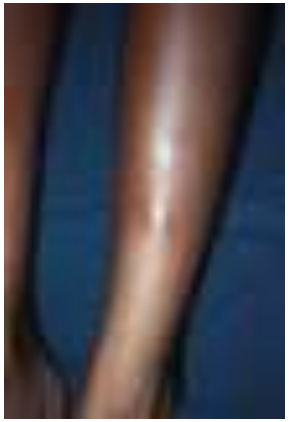
Physical Exam

- Classical presentation
  - RLQ pain (usually)
- Severe presentation
  - Fever, anemia, or any other severity criteria
  - Extra intestinal manifestation
    - Joint (arthralgia, arthritis)
    - Skin (pyoderma gangrenosum and erythema nodoso)
    - Eye (Episcleritis and Uveitis)
    - Liver (liver enzyme elevation, PSC, AIH, both)
    - Thromboembolic diease DVT

Extra intestinal manifestation



Pyoderma gangrenosum



Erythema nodoso

Complication

- Toxic Megacolon
- Colonic Perforation
- Hemorrhage
- Strictures
- Colon Cancer

Toxic Megacolon

- Colonic dilation 5.5 to 6 cm (transverse)
- Fever
- Tachycardia
- Abdominal pain
- Steroid could occult the fever and tachycardia)

Colonic Dilation (Toxic Megacolon)

werlin and Grand score 4 of 5

- Presence of colonic dilation of >6 cm
- Bloody stool >5
- Temperature >100 first day of evaluation
- Pulse ≥ 90
- Anemia ≤30% Hcto
- Albumin ≤ 3 gr/dl

Toxic Megacolon risk factors

Drugs

Motility

- Narcotic
- Anticholinergic
- Antidiarrheal
- Antidepressants with anticholinergic effect

Early weaning of

- Steroid
- 5-ASA

Toxic Megacolon treatment

- Surgical evaluation
- Stool culture
- C diff toxic testing
- Fluid resuscitation
- Antibiotic
- Steroid
- Bowel rest
- Infliximab
- Cyclosporine/tacrolimus
- Emergency colectomy (if no improvement in 48 hours)

UC cancer risk

- 2% at 10 year of diagnosis
- 8% at 20 year of diagnosis
- 18% at 30 years of diagnosis

UC Differential Diagnosis

- Chronic Idiopathic
  - CD, IC, lymphocytic, Collagenous and Eosinophillic Colitis
- Infectious
  - Bacterial(CSSEY Staph areus, NG, TP, TB, C diff)
  - Viral (CMV, Herpes, HIV)
  - Parasitic (Entamoeba histolytica)
- Vasculitic (HSP, HUS, Behcet's disease)
- Other (ischemic, allergic, hirschsprung's, GVS, NEC, chemotherapy, radiation and diversion colitis)

Laboratory Assessment

- Blood
  - CBC, ESR, CRP
- Stool test
  - Culture, C diff. fecal leukocytes, calprotecin
- Serology
  - IBD 7 panel
    - P-ANCAs 80% UC and 27% CD
    - ANCA in UC
    - ASCAS in CD

Endoscopic Finding

- Distribution of inflammation
- UGI findings
- Biopsy
  - Microscopic diffuse mucosal infiltration by inflammatory cells and crypts distortion
  - Well formed granulomas and transmural inflammation and fibrosis for CD

Radiologic Evaluation

- KUB
  - Dilation, perforation
- UGI with SBFT
  - Strictures and fistulas
- CT or US
  - Intra-abdominal abscess

Treatment

- Medical roll to induced and maintain remission
  - Aminosalicylates
    - Sulfasalazine (mesalamine) and 5-aminosalicylic acid (mesalazine)
    - Mesalamine 50-100 mg/kg/day
  - Corticosteroids
    - Prednisolone (1-2 mg/kg/day max of 40 mg per day) 2 to 4 weeks and wean by 5 mgs day per week changes.

Treatment

- Continues
  - Budesonide
  - Immunosuppressants
    - Azathioprine/ 6-MP, Methotrexate, Cyclosporin/tacrolimus and antibiotic
  - Biologicals
    - Infliximab, (Alicaforsen, Visilizumab, Daclizumab, Basiliximab)
    - Leukacytapharesis
    - Probiotics
    - Worms Trichuris suis
  - Others
    - Oral aloe vera
- Surgical
  - Surgical colectomy

Pediatric Gastroenterology Clinic of South Texas and Children's Health Experts