Entamoeba histolytica Nosode in the Homeopathic Treatment of Ulcerative Colitis

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Abstract

Ulcerative colitis is a severe chronic and invalidating autoimmune disease of the gastrointestinal tract. Conventional medical treatment is based on intestinal local and systemic anti-inflammatory drugs, local and systemic steroids, and systemic immunosuppressant agents with multiple side effects. A case of steroid-dependent immunosuppressant-treated patient is illustrated. Homeopathic treatment rapidly improved the clinical picture and allowed withdrawal of immunosuppressants, but did not prevent long-term relapsing intestinal and extraintestinal inflammation. Subsequent administration of the homeopathic nosode *Entamoeba histolytica* healed the patient, with long-term normalisation of intestinal immune function.

Keywords

- ulcerative colitis
- nosode
- *Entamoeba histolytica*

Clinical Case

Ms. M.T. is a 34-year-old Caucasian woman. She is short, thin, and dark haired. Her skin is fair, easy blushing, and shows pimples on cheeks and chin. She is very active and emotionally sensitive.

Medical History before Consultation

She suffered from pharyngotonsillitis since childhood, with frequent use of antibiotic. In 2002 and 2003, she had six courses of large spectrum antibiotics, with concomitant progressive worsening of intestinal function.

She was diagnosed with ulcerative colitis in 2003, at the age of 22 years, when she was admitted to hospital after 2 months of chronic mucous diarrhoea refractory to common antidiarrhoeic, rectal bleeding, and severe abdominal cramps. Colonoscopy revealed oedema, mucosal fragility, and serpiginous ulcers[a] with full colon involvement. After a course of steroids and *mesalamine*,[b] because of immediate relapse during steroid tapering, the disease was classified as steroid-dependent and daily long-term therapy with *azathioprine*[c] 100 mg was started. In 2010, because of severe relapse, anti-TNF[d] intravenous therapy (*infliximab*) was initiated with no therapeutic effects and the patient was admitted to hospital for a course of intravenous steroids. After hospital discharge, she sought alternative therapies to treat her relapsing intestinal disease, and we had our first consultation.

First Consultation—September 2010

She looked shy, frightened, and tearful. She complained of severe lower abdominal cramping, accompanied by bowel gurgling sounds and followed by passage of offensive, slimy, and bloody stools, six to eight times a day, almost in the morning, with very urging need. Actual therapy was mesalamine 800 mg three times a day, azathioprine 75 mg daily. She wept declaring that her first complaint was the fear of never being able to withdraw azathioprine therapy. This meant for her not being able to give birth to a healthy child.

[a] "Creeping; denoting an ulcer or other cutaneous lesion that extends with an arciform border; the margin has a wavy or serpentine border."

[b] "antiinflammatory drug"

[c] "immunosuppressive drug"

[d] "TNF = tumour necrosis factor"

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Generals: She likes sweets, cakes, fried food (chips). Strong aversion for green food.

Relevant observations on physical examination: Moderate abdominal tenderness in right and left iliac regions, normal peristalsis. Dry tongue, white coated with red edges. Diffuse acneic eruption on face. Weight 49 kg. Height 160 cm.

Investigations: Mild leukocytopenia (3,500 white blood cells/µL) and lymphocytopaenia (lymphocytes 940/µL), mild increase of GOT (37 U/L) and GPT (43 U/L). Moderate hypoalbuminemia (31.7 g/L). Normal C reactive protein.

Diagnosis: Steroid-dependent ulcerative colitis in treatment with immunosuppressant therapy. Moderate clinical activity poorly responsive to medical therapy (anti-TNF agents) and easy relapsing. Leukocytopenia secondary to azathioprine therapy.

Prognosis: Life-long immunosuppressant therapy, possible annual relapses with hospital admissions, eventual total colectomy to be considered.

Analysis

Rubrics considered (►**Fig. 1**—Complete 2009 Repertory by Roger van Zandvoort, in Mac Repertory—Synergy Homeopathic):

- Mind; SENSITIVE, oversensitive (485)
- Mind; WEEPING, tearful mood (513)
- Face; ERUPTIONS; pimples (275)
- Face, ERUPTIONS; pustules (139)
- Mouth; DRYNESS; tongue (231)
- Mouth; COATED; white; tongue (124)
- Mouth; RED; tongue; edges (67)
- Abdomen; PAIN; cramping, griping; stool; before (177)
- Abdomen; GURGLING sound; stool; before (21)
- Rectum; URGING, desire; sudden; morning (45)
- Rectum; DIARRHOEA; chronic (108)
- Stool; BLOODY (244)
- Stool; MUCOUS, slimy; bloody (110)
- Stool; MORNING; rising; before, or driving from bed (19)
- Skin; PALE (382)
- Generalities; FOOD and drinks; green food; aversion (3)
- Generalities; FOOD and drinks; vegetables; aversion (53)

Excerpts from Dr. S. R. Phatak Materia Medica—*Podophyllum peltatum*[1]

GENERALITIES: Considered as a vegetable mercury, it is a remedy for bilious constitution. It mainly affects the duodenum, liver, intestines, and RECTUM…

ABDOMEN: GURGLING THROUGH BOWELS, THEN PROFUSE, PUTRID stool, dirty, GUSH OUT PAINLESSLY…*Rectum raw, sore, weak…Morning diarrhoea,* Diarrhoea > lying on abdomen…< eating canned, acid fruits, milk.

Prescription: *P. peltatum 200C* 5 drops in little water twice a week. Correction of dietary habits, exclusion of dairy products (milk), and increase of raw vegetables. Mesalamine 800 mg three times a day, azathioprine 50 mg daily. Monthly e-mail or phone contacts.

Follow-up

March 2011

Patient had progressive general amelioration with normal stools two times a day, bimonthly 2 to 3 days relapses with increased number of evacuations and recurrent abdominal pains. Relapses were treated by increasing remedy frequency (e.g. *P. peltatum* 200C 5 drops in little water twice a day till recovery) or, in cases of not effectiveness, with *Antimonium tartaricum 200C* 5 drops in little water twice a day till recovery. The latter remedy being chosen based on repertorisation (►**Fig. 1**) and personal clinical experience as acute phase antidiarrheic remedy.

Investigations: Mild leukocytopenia (3,290 white blood cells/µL) and lymphocytopaenia (lymphocytes 1,030/µL), normal GOT (15 U/L), normal GPT (13 U/l), normal albuminaemia (47.8 g/L) and normal C-reactive protein.

Prescription: *P. peltatum* 200C 5 drops in little water twice a week. Reduce azathioprine to 25 mg daily and continue mesalamine 800 mg three times a day.

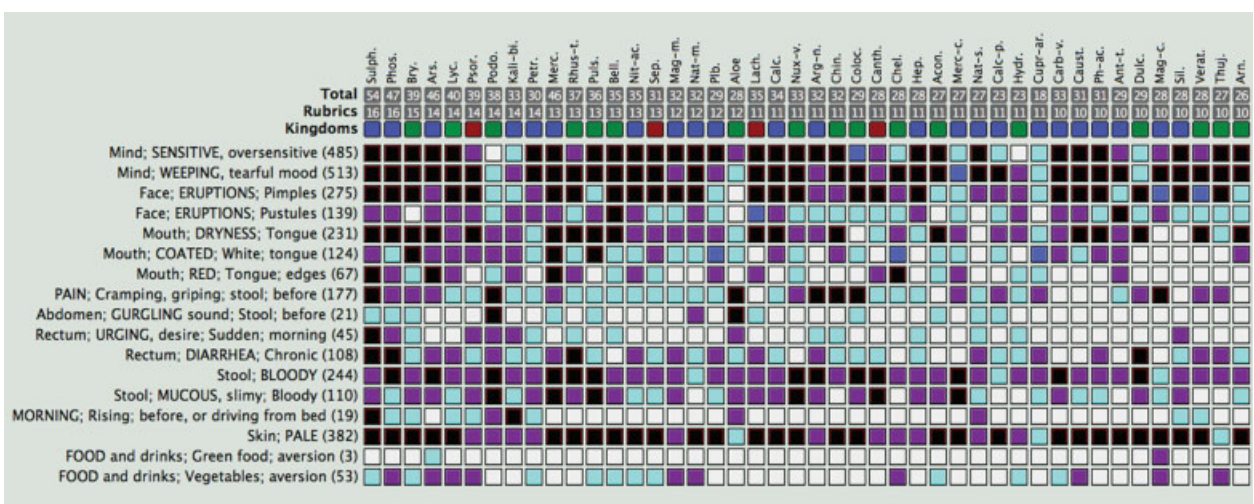

Fig. 1 Repertorisation graph (Complete 2009 Repertory by Roger van Zandvoort, in Mac Repertory—Synergy Homeopathic).

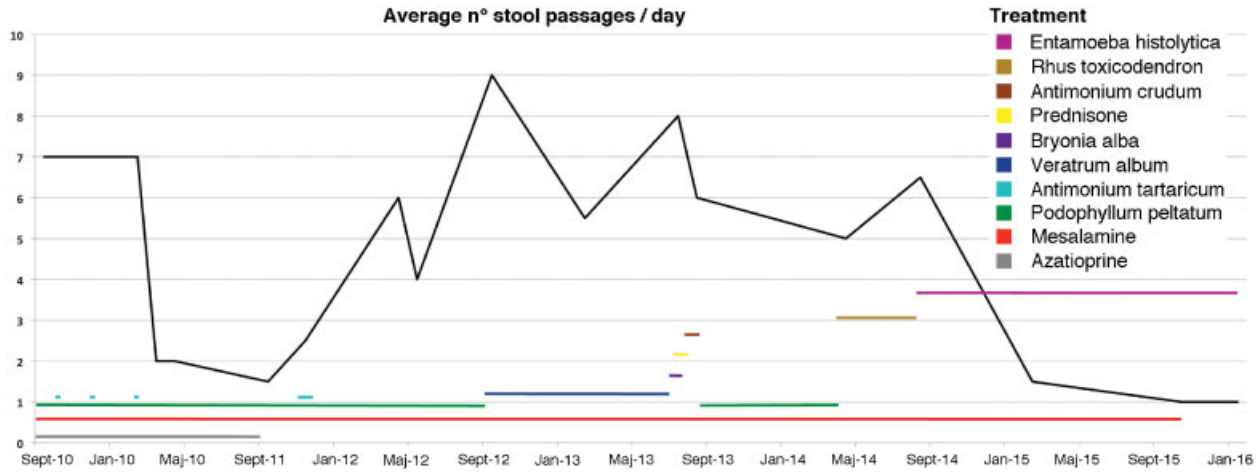

Fig. 2 Mean stool passages per day (not intended for statistical inference).

September 2011

Good clinical conditions. Normal stools: one to two times a day in the morning. No abdominal pain.

Investigations: Normal blood cell count (4,390 white blood cells/µL), mild lymphocytopaenia (lymphocytes 1,280/µL), normal C-reactive protein and normal erythrocyte sedimentation rate.

Prescription: *P. peltatum* 200C 5 drops in little water twice a week. Withdraw azathioprine, and continue mesalamine 800 mg three times a day.

November 2011

Epigastric pain, abdominal bloating, general fatigue. Irregular bowel movements: two to three passages of liquid stools in a day, every 3 days. Very active: works 8–10 hours a day, practices running three times a week, and mountain bike racing every weekend.

Investigations: Normal blood cell count (6,440 white blood cells/µL), mild lymphocytopaenia (lymphocytes 1,290/µL), normal C-reactive protein and normal erythrocyte sedimentation rate.

Prescription: Course of Antimonium tartaricum 200C 5 drops in little water twice a day for 2 weeks, then *P. peltatum* 200C 5 drops in little water twice a week. Continue mesalamine 800 mg three times a day.

April 2012

The past 4 months characterised by recurrent morning abdominal fullness and pain, with four to eight passages of liquid stools with blood drops at the end of evacuation.

Investigations: Mild lymphocytopaenia (lymphocytes 1,400/µL), normal C-reactive protein and increased erythrocyte sedimentation rate (24 mm) and ferritin (203 ng/mL).

Prescription: *P. peltatum* 200C 5 drops in little water twice a day. Mesalamine 800 mg three times a day. Repeat investigations after 1 month.

May 2012

No rectal bleeding, morning abdominal pain and fullness, and four urgent stool passages in the morning.

Investigations: Normal C-reactive protein. Increased erythrocyte sedimentation rate (49 mm).

Prescription: *P. peltatum* 200C 5 drops in little water twice a day. Increase mesalamine to 1,200 mg three times a day.

September 2012

July and August: Increased (10–12) morning passages of watery, bloody stools. Abdominal pain. Can't go to work. Weight loss (3 kg). *September*: no blood, 8–10 stool passages, morning abdominal pain.

Investigations: Normal C-reactive protein; mildly increased erythrocyte sedimentation rate (32 mm) and ferritin (159.2 ng/mL).

Prescription: *Veratrum album 200C* 5 drops in little water twice a day. Mesalamine 1,200 mg three times a day. This remedy choice was based on repertorisation (►**Fig. 1**) and personal experience on its clinical use as a watery and bloody stool remedy.

February 2013

Morning symptoms of abdominal bloating, fullness, pain, five to six urgent stool passages, no blood. Asymptomatic in the afternoon and evening. Had some days with nausea. Increased weight (4 kg).

Investigations: Normal C-reactive protein. Mildly increased erythrocyte sedimentation rate (27 mm) as well as normal ferritin and blood cell count.

Prescription: Veratrum album 200C 5 drops in little water twice a day. Mesalamine 1,200 mg three times a day.

July 2013

After 2 months of general well-being, severe extraintestinal disease relapse preceded by 1 week of nightly abdominal pain attacks with liquid stools. Erythema nodosum of the lower limbs. Swollen ankles and knees. Lower limbs arthralgia and myalgia, cannot walk.

Investigations (July 2013): Increased erythrocyte sedimentation rate (70 mm) and C-reactive protein (3.5 mg/dL); increased ferritin (151 ng/mL) and normal blood cell count.

Prescription: *Bryonia alba 10MK* 5 cups method.[2] Mesalamine 1,200 mg three times a day. If no clinical response in 3 days, begin *prednisone 25 mg.*

Bryonia alba was chosen as an acute phase remedy based on repertorisation (►**Fig. 1**) and the severe arthritic involvement. Five cups is a plussing method developed, experimented and taught by Dr. F. Master from Mumbai, India. Its use is in the acute context. It consists of progressive dilution and dynamisation of remedy dissolved in a cup of water and stirred with a spoon. The same spoon (emptied but with film of remedy solution adherent to it) is then immersed and stirred sequentially in four other cups of water, producing a 1 cup volume solution of potentised remedy to be administered at very frequent rates (up to one spoon every 5 minutes).

August 2013

No response to Bryonia therapy. Clinical response to prednisone, then tapered and withdrawn. Stomach pain, nausea. White tongue.

Prescription: *Antimonium crudum 200C* 5 drops in little water twice a day for 10 days, then resume *P. peltatum* 200C 5 drops in little water twice a day. Mesalamine 1,200 mg three times a day. Antimonium crudum was chosen as a temporary remedy to treat side effects of steroid therapy: stomach pain, nausea. White tongue was an indication.

April 2014—General Reevaluation

Five passages of watery stools in the morning, then amelioration during day. Aggravation after eating breakfast. Morning mild back pain on waking. Better with movement. Practice long-distance cycling. Colour preference[3]: 12C-1C.

Relevant observations on physical examination: Mild lower abdominal bloating, no pain, normal peristalsis. Fissured tongue. Mild acneic eruption on face. Weight 50 kg.

Investigations: Colonoscopy: mild to moderate severity ulcerative colitis involving last 30 cm of colon (proctosigmoiditis). Mild increase erythrocyte sedimentation rate (20 mm), normal C-reactive protein, and normal blood cell count. Elevated faecal calprotectin.[e]

Diagnosis: Moderate activity ulcerative colitis, involving last 30 cm of left colon. Poor symptomatic control with medical therapy. Easy relapsing disease. Consider biologic therapy with *adalimumab*.[f]

Prescription: *Rhus toxicodendron 200C* twice a day for 1 month, then once a day. Mesalamine 1,200 mg three times a day. Rhus toxicodendron was the choice based on repertorisation (►**Fig. 1**) and the prevailing physical and mental hyperactivity of the patient, with an urging need to be active and be able to do whatever she desires. Fissured tongue and morning back pain, ameliorated by movement, were additional indications.

[e] "Elevated faecal calprotectin indicates the migration of neutrophils to the intestinal mucosa, which occurs during intestinal inflammation"

[f] "Adalimumab binds to tumor necrosis factoralpha (TNFa)"

August 2014

Persistently increased number of morning watery (at times bloody) stool passages, preceded by intense lower abdominal pain. Very difficult going to work.

Investigations: Normal erythrocyte sedimentation rate, normal C-reactive protein, and normal blood cell count.

Prescription: *Entamoeba histolytica 200C* 5 drops in little water twice a week. Mesalamine 1,200 mg three times a day. The choice of the nosode of *E. histolytica* is detailed in 'Discussion' paragraph.

February 2015

Asymptomatic since the end of September 2014. Regular stool one to two times a day, no urge, no blood, no abdominal pain, mild abdominal distention, general well-being.

Investigations: Normal erythrocyte sedimentation rate, normal C-reactive protein, and normal blood cell count.

Prescription: *E. histolytica* 200C 5 drops in little water twice a week. Mesalamine 1,200 mg three times a day.

October 2015

Well-being. Normal stool passage once a day or every other day. No bloody or watery stools. No abdominal pain or discomfort. Mild lower abdominal bloating. Never started new biologic immunosuppressant treatment (adalimumab).

Relevant observations on physical examination: Mild abdominal bloating, no tenderness, normal peristalsis, normal tongue, no acneic eruption on face, and weight 50 kg.

Investigations: Normal erythrocyte sedimentation rate, normal C-reactive protein, and normal blood cell count.

Diagnosis: Ulcerative colitis and complete clinical and laboratory remission.

Prescription: *E. histolytica* 200C 5 drops in little water once a week. Mesalamine 1,200 mg three times a day, progressive tapering.

January 2016

General well-being. Normal intestinal function. Lamenting mild dysmenorrhoea. Regularly working and cycling.

Diagnosis: Ulcerative colitis and complete remission phase.

Prescription: *E. histolytica* 200C 5 drops in little water once a week. Six months of follow-up.

Discussion

Ulcerative colitis is a potentially life-threatening, chronic, life-long invalidating disease of the large intestine.[4] Common symptoms at presentation include abdominal pain, chronic diarrhoea, rectal bleeding, mucous and bloody stools, and fever. Endoscopic findings show mucosal oedema, ulcerations, and bleeding (►**Figs. 3** and **4**). Involvement may be partial (left colon) or complete (pan-colonic). Etiology is believed to reside in an abnormal pathologic interaction between individual genetic asset (genome), intestinal resident microbic populations (microbiome), and environmental (e.g. dietetic, toxic) exposures (exposome) driving an unrestricted immune-mediated inflammation. Antibiotic-

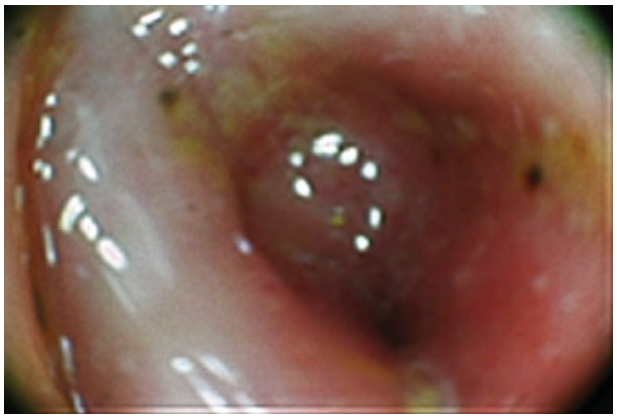

Fig. 3 Ulcerative colitis. Erythematous oedematous rectal mucosa with aphthous ulcers.

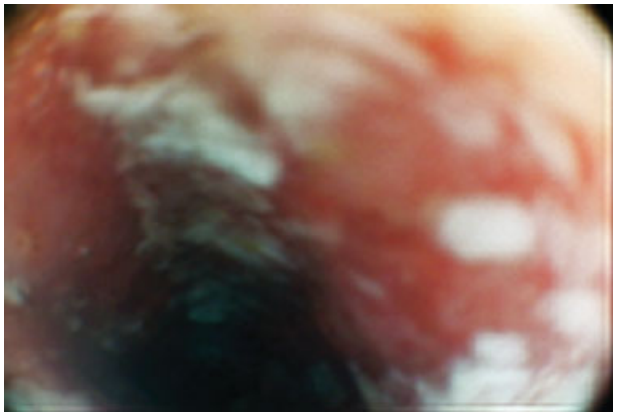

Fig. 4 Ulcerative colitis. Serpiginous ulcers of colonic mucosa, partly fibrin covered.

driven childhood microbiome alterations are considered a life-long ulcerative colitis risk factor.[5] Conventional medical treatment includes topic or systemic intestinal anti-inflammatory drugs as mesalamine, and topic or systemic steroids. Lack of clinical response to intravenous steroid therapy defines a 'steroid-resistant' disease, while rapid relapse at steroid tapering defines a 'steroid-dependent' disease. Both conditions are generally managed with immunosuppressant drugs, the older ones (e.g. azathioprine, mercaptopurine, cyclosporine) or the new biologics (e.g. anti-TNF monoclonal antibodies) with increasing levels of potential side effects.

True etiologic treatment should restore normal genome–microbiome–exposome relationship, driving to normal immune function. Homeopathic vision on miasms (lifelong-acquired offspring-transmissible predisposition toward disease) and their treatment with anti-miasmatic (deep-acting) remedies or with nosodes (highly diluted homeopathic solutions of microbic material or pathologic tissues) is compelling.[6] Homeopathic literature describes good clinical results with the use of intestinal microbiome-derived nosodes, named *Bowel nosodes*,[7] suggesting the use of homeopathic-diluted intestinal pathologic bacteria as new therapeutic options for both intestinal and extraintestinal inflammation.

The case presented here showed an easy-relapsing steroid-dependent disease, in treatment with anti-inflammatory drugs (mesalamine) and immunosuppressants (azathioprine) at the time of first consultation, with poor control of symptoms. No clinical response was obtained with novel anti-TNF biologics. Initial homeopathic remedy was chosen based on clinical case taking, computer repertorisation, Materia Medica analysis, and personal experience in treating ulcerative colitis patients. *P. peltatum* was the main remedy used during the long follow-up. *Antimonium tartaricum*, *Veratrum album*, *Bryonia alba*, and *Rhus toxicodendron* were used as temporary or acute exacerbation remedies. Homeopathic treatment was complemented with correction of alimentary habits and exclusion of dairy products, as indicated by patient history.

Homeopathic treatment produced a rapid clinical response, with amelioration of abdominal pain, normalisation of number of daily stool passages, the absence of faecal blood or mucus, and normalisation of laboratory results. Immunosuppressant (azathioprine) tapering started without clinical or laboratory worsening. Relapsing intestinal inflammation and clinical symptoms, partially ameliorated by acute phase homeopathic treatments, were observed on complete azathioprine withdrawal, ending in intestinal, extraintestinal, and laboratory results relapse. After 18 months since the withdrawal of immunosuppressant, an oral steroid short course was necessary to treat nightly abdominal pain attacks with liquid stools and erythema nodosum, arthralgia, and myalgia of lower limbs.

A new treatment strategy was necessary to restore normal intestinal immune function. The hypothesis of a pathologic microbiome–immune system interaction following antibiotic use and leading to unrestricted intestinal inflammation was reinforced by patient's childhood and early adulthood extensive antibiotic use to treat recurrent pharyngotonsillitis episodes. This suggested the use of a nosode to restore normal intestinal microbial life. Following Dr. Luis Klein's seminar lectures and publications on encouraging clinical results with the use of *Johneinum* nosode[6] in *Crohn's disease*, an infectious agent with ulcerative colitis-like clinical and histopathological picture was searched. The attention to the protozoa *E. histolytica* was driven by the anamnestic observation of past amoebic infection in some patients, who eventually developed ulcerative colitis (personal unpublished series).

Entamoeba histolytica—Clinical and Histopathologic Picture

E. histolytica is an anaerobic parasitic protozoan, part of the genus *Entamoeba*. Predominantly infecting humans and other primates, *E. histolytica* is estimated to infect approximately 50 million people worldwide. The active (trophozoite) stage exists only in the host and in fresh loose faeces; cysts survive outside the host in water, in soils, and on foods, especially under moist conditions on the latter. The cysts are

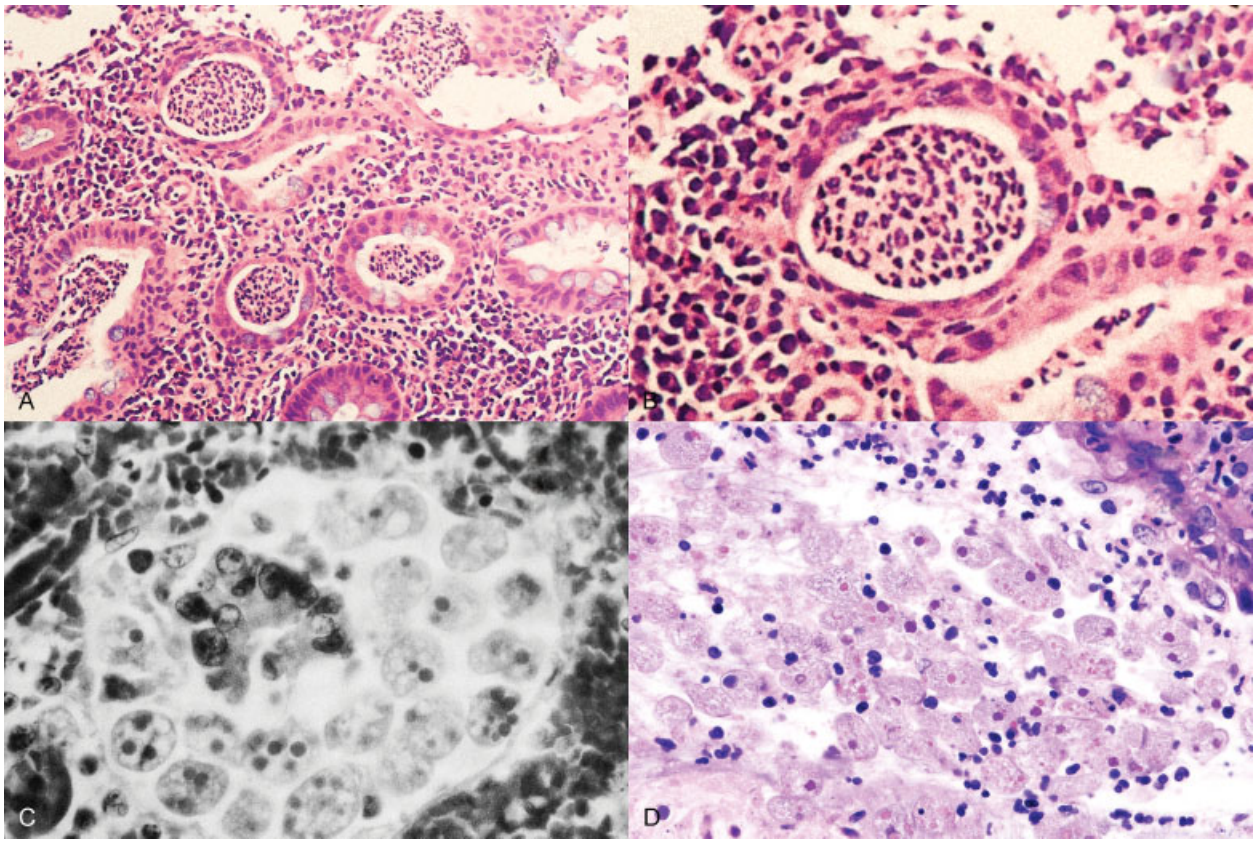

Fig. 5 Pathologic specimen of ulcerative colitis (**A**). Particular of crypt abscess (**B**). Pathologic specimens of amebic colitis (**C–D**), note amebic trophozoites in crypt abscess. [(**A, B**) Reprinted with permission from Wilcox C.M. Atlas of Clinical Gastrointestinal Endoscopy. Companion to Sleisenger and Fordtran's Gastrointestinal Disease. W.B Saunders Company; 1995]. [(**C**) Reprinted with permission from Feldman M, Friedman L. S, Sleisenger M.H. Sleisenger and Fordtran's Gastrointestinal and Liver Disease. 7th ed. W.B. Saunders Company; 2002.] (**D**) [Reprinted under CC BY-SA 3.0 from Amoebiasis. Wikipedia, the free encyclopaedia. Accessed December 2015. Author of the image unknown].

readily killed by heat and by freezing temperatures, and survive for only a few months outside of the host. When cysts are swallowed, they cause infection by excysting (releasing the trophozoite stage) in the digestive tract. Once the trophozoites are excysted, they colonise the large bowel, remaining on the surface of the mucus layer and feeding on bacteria and food particles. Occasionally, and in response to unknown stimuli, trophozoites move through the mucus layer, where they come in contact with the epithelial cell layer and start the pathological process. *E. histolytica* has a lectin that binds to galactose and N-acetylgalactosamine sugars on the surface of the epithelial cells. The lectin normally is used to bind bacteria for ingestion. The parasite has several enzymes, such as pore forming proteins, lipases, and cysteine proteases, which are normally used to digest bacteria in food vacuoles but which can cause lysis[g] of the epithelial cells by inducing cellular necrosis and apoptosis when the trophozoite comes in contact with them and binds via the lectin. The trophozoites will then ingest these dead cells. This damage to the epithelial cell layer attracts human immune cells and these in turn can be lysed by the trophozoite, which releases the immune cell's own lytic enzymes into the surrounding tissue, creating a type of chain reaction and leading to tissue destruction. This destruction manifests itself in the form of an ulcer in the tissue, typically described as flask shaped because of its appearance in transverse section. This tissue destruction can also involve blood vessels leading to bloody diarrhoea.[8] Infection can be asymptomatic or can lead to amoebic dysentery or amoebic liver abscess. Symptoms of fulminating dysentery, bloody diarrhoea, weight loss, fatigue, and abdominal pain show striking similarity to the active phase of ulcerative colitis, sometimes complicating differential diagnosis. Amoebic liver disease reminds of primary sclerosing cholangitis (PSC), a liver disease frequently complicating ulcerative colitis. Similarity is also present at a microscopic level, where amoebic trophozoites infection in colonic crypt resembles ulcerative colitis crypt abscess (►**Fig. 5**). The presence of trophozoites only differentiates the two similar inflammatory reactions at tissue level. Large spectrum antibiotic *metronidazole* is the similarity link between amoebic infection and ulcerative colitis therapies, used in the former as monotherapy and in the latter as combined therapy for acute exacerbations.

Administration of homeopathic nosode *E. histolytica* 200C at 1-week dose intervals showed high clinical efficacy, with rapid, complete, and sustained disease remission for

[g] "cell death"

18 months. No partial or temporary relapses were observed or acute phase remedies needed after the nosode administration, not even after mesalamine withdrawal.

The ability of the specific homeopathic bowel nosode to restore normal intestinal microbial life and down-regulate intestinal immune function toward tolerance of luminal antigens may explain the observed clinical effectiveness.

Suggested Rubrics for *Entamoeba histolytica* Nosode

- Mind; ALTERNATING states; Emotional
- Mind; ACTIVITY; Desire for
- Abdomen; PAIN; Cramping, griping; stool; before
- Rectum; DIARRHEA; Chronic
- Rectum; DIARRHEA; Morning
- Rectum; DIARRHEA; Sore throat; suppressed, after
- Rectum; URGING, desire; Sudden; morning
- Stool; BLOODY
- Stool; MORNING
- Stool; MUCOUS, slimy; Bloody
- Generalities; FOOD and drinks; Green food; aversion
- Generalities; FOOD and drinks; Milk, milk products; agg.
- Yellow Mid; 1C
- Green Mid; 21C

Acknowledgments

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