Chronic (nonulcerative) colitis (CC)

**Chronic (nonulcerative) colitis** (CC) - a chronic nonspecific polyetiological disease of colon, morphologically characterized by the development of inflammatory-dystrophic changes (with prevalence of either inflammatory or dystrophic), and with long-term flow - atrophic changes in the mucous membrane of entire colon or its parts and colon dysfunction.

In the literature of our country, the notions of "enteritis" and "colitis" used to be united into one diagnosis (chronic enterocolitis with primary lesion of a certain intestinal part). Recently, enteritis and colitis are considered as separate, though still connected nosologies.

In occidental literature and MSKH-10 the notions of "enteritis" and "colitis" have slightly different meaning. There are infectious (acute, with a known infectious agent) and non-infectious enteritis and colitis (K50-K52).

Among non-infectious enteritis and colitis are:

**Non-infectious inflammatory diseases of intestines:**

- Crohn's disease (regional enteritis) - K50,
- ulcerative colitis - K51.

**Other non-infectious gastroenteritis and colitis (K52):**

a) postradiational (after irradiation)

b) toxic (cause of intoxication must be specified)

c) allergic and nutritional (caused by allergies to food components)

d) eosinophilic,

e) ischemic

f) other of specified ("microscopic colitis" - collagen, lymphocytic) and unspecified origin.

In the literature of our country CE and CC include other conditions (see Etiological moments)

"Unified clinical and statistical classification of digestive system diseases" (Ministry of Health of Ukraine, 2004) is an attempt to reconcile the MSKH 10 data and needs of the clinic on problem of chronic colitis:

**Chronic colitis K52**

**Etiology:**

E1 - nutritional K.52.2

E2 - postinfectious
E3 - parasitic
E4 - allergic K.52.2
E5 - toxic K.52.1
E6 - radiation K.52.0
E7 - mechanical
E8 - pseudomembranous

Functional bowel condition:
Q1 - hypomotor
Q2 – hypermotor

Phase process:
F1 – exacerbation
F2 – remission

Stages of CC etiopathogenesis
• Undergone acute intestinal and chronic long-lasting infections
• Genetically conditioned factors
• Parasitic diseases
• Ionizing radiation
• Toxic substances and certain medicaments
• Primary diseases of other digestive organs and some other systems
• Diet and nutritional quality disturbance- alimentary factors
  - dysbacteriosis;
  - immune reaction changes (local) + allergy;
  - untreated chronic infections and parasitic helminthic invasion;
  - dysfunction of gastrointestinal endocrine system;
  - fermentopathies

Large intestine changes:
- inflammatory;
- dystrophic;
- dysgenerative;
- atrophic

Intestinal function disorder:
- motor;
- secretory

Extraintestinal disturbances (not evident as a rule)

Classification of chronic colitis:

Etiology:

I. Primary colitis
   Infectious (postinfectious)
   Alimentary
   Toxic
   Allergic
   Postradiational

II. Secondary
   At other digestive organ diseases and ischemic colitis (at mesenteric veins pathology)

Characteristic:

**A. Anatomical and morphological:**

I. By localization:
   1. Total CC (pancolitis)
   2. Segmental CC:
      - right-side (typhlitis);
      - transversitis;
      - angulitis;
      - Left-sided (sigmoiditis, proctitis, proctosigmoiditis).

II. By morphological features (depth of lesion):
   1. Superficial CC
   2. Atrophic CC

**B. Clinical:**

I. The clinical phase of disease:
   1. Exacerbation
   2. Remission

II. By severity of flow:
   1. light (I degree)
2. moderate (II degree)

3. severe (III degree)

III. By complications:

- solar plexitis (ganglionitis);
- mesadenitis;
- pericolitis;
- bowel obstruction;
- coprostasis;
- dysbacteriosis (if it is a result of colitis)

C. Functional:

I. The nature of motility disorder:

- hypermotor;
- hypomotor;
- mixed dyskinesia

II. Presence of transport disorder (hyposecretion of ions and water, reducing of their reabsorption)

III. Mucus secretion disorder:

- hypersecretion;
- hyposecretion

Clinic picture of chronic (non-ulcerative) colitis

Typical clinical syndromes at CC:

- pain syndrome;
- dyskinetic syndrome;
- dyspeptic syndrome;
- asthenoneurotic syndrome

Diagnostic criteria of chronic colitis:

1. Complaints;
2. History (etiological factors identifying);
3. Dyskinetic syndrome (changes in gut motility and tone);
4. Instrumental methods of study (detection of organic and functional changes in colon):

   - colonoscopy,
   - proctoscopy with mucous membrane biopsy;
   - radiological methods
5. Laboratory methods of study:
   - coproscopy-basic analysis;
   - dysbacteriosis analysis and (if it is detected) - antibiotic susceptibility ;
   - additional complete urine and blood analysis
   - urine amylase, blood biochemistry

**Differential diagnostics of chronic enteritis and chronic colitis:**

<table>
<thead>
<tr>
<th>Signs</th>
<th>Chronic enteritis</th>
<th>Chronic (nonulcerous) colitis</th>
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<tbody>
<tr>
<td>1. Pain</td>
<td>Of bursting character, around the navel, 3-4 hours after eating, sometimes worsens after stool</td>
<td>Down the colon, depending on process localization, of various character (dull, aching, bursting, cramp-like), 7-8 hours after eating or immediately after it (as a result of gastrointestinal reflex), temporarily decrease after stool</td>
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<tr>
<td>2. Constipations</td>
<td>Not typical</td>
<td>Sometimes</td>
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<tr>
<td>3. Tenesmus</td>
<td>absent</td>
<td>typical</td>
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<tr>
<td>4. Diarrhea</td>
<td>6-8 times a day, rarely 2-3 times, usually in second part of day, in the evening, defecation does not bring relief polyfecalia, fatty stool without blood</td>
<td>10 times or more a day after eating, especially after breakfast, sometimes early in the morning (&quot;alarm clock symptom&quot;). Pain increasing before defecation an decreasing after it. Small stool volume, semi-formed, liquid or semi-liquid, with mucus, blood-streaked stool</td>
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<tr>
<td>5. Palpation</td>
<td>Painfullness in the navel area, Porges point, Obraztsov symptom ( loud rumbling in blind gut area)</td>
<td>Painfullness, spasm or dilatation of certain colon part</td>
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<tr>
<td>6. General changes</td>
<td>as disorders of protein, carbohydrate, lipid metabolism, electrolyte balance, level of vitamins</td>
<td>Unexpressed (happen mainly with dysbacteriosis of III-IV stage joining)</td>
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<tr>
<td>7. Weight loss</td>
<td>In most patients</td>
<td>Not typical</td>
</tr>
<tr>
<td>8. Biochemical indices changes</td>
<td>typical</td>
<td>Not typical</td>
</tr>
<tr>
<td>9. Stool micro- and macroscopy</td>
<td>large volume stool ( polyfecalia ) inflammatory elements in</td>
<td>Small volume stool</td>
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<td></td>
<td></td>
<td>Inflammatory changes syndrome ( mucus,</td>
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</tbody>
</table>
Principles of chronic non-ulcerative colitis treatment:

I. Diet

II. Drug therapy:
- antibiotic therapy and normalization of intestinal microflora;
- normalization of intestine motor function and correction of stool disorder;
- treatment of evident allergic reactions;
- local treatment of proctosigmoiditis;
- stabilizers of intestinal epithelium membranes;
- enzymes

III. Phytotherapy

IV. Physiotherapy

Preparations, which influence on gut organisms

- Antibiotics - drugs of primary fungous origin that have antagonistic effect both on pathogenic and normal microflora
- Eubiotics - preparations of various (synthetic and microbiologic) origin, affecting the pathogenic microflora without significant negative influence on normal intestinal microflora. To eubiotics belong preparations with mentioned characteristics, which, however, do not include in their composition normal intestinal microflora and its substances.
- Probiotics – preparations containing normal intestinal microflora and/or products of its activity or processing: Linex, Symbiter laktovit, Bifi form and other.
- Prebiotics – preparations of various (mainly carbohydrate) origin, that promote growth and/or activity of probiotic bacteria, lactulose, inulin, pectin, vitamin B15.
- Synbiotics -preparations containing components of both probiotic and prebiotic actions.

Preparations for intestinal function normalization

1. Drugs that increase the viscosity of gut contents:
   a) astringent and coating drugs:
      • 0,5 g of tanalbin 3 times a day before meals;
• 0.5 g of bismuth nitrate 3 times a day, 30 minutes before meal, 1 tab. of de
nol 4 times a day;
• 0.5 g of calcium carbonate 3 times a day, 30 minutes before meal

b) adsorbents:
• 2 tab. of activated charcoal 3 times a day for 3-5 days;
• 1 tbsp to ½ -1 cup of water of polipefan (in granules) 3 times a day before
meal for 5-7 days;
• enterosgel – according to scheme;
• 1 packet of smecta to 100 ml of water 2-3 times a day for 5-7 days;
• 1-2 tab. of kaopektat 2-3 times a day;
• 2 tab. of sabsimplex (simethicone) 3 times a day after meal; espumizan;
• 1-2 tsp of bilignin 3 times a day before meal

2. Drugs that slow passage of intestinal contents and gut motility:

a) at hypertensive-hyperkinetic dyskinesia with pain syndrome:
• myotropic spasmolytics (1 tab. of no-shpa 3 times a day, 2 ml of papaverine 2
times a day intramuscularly);
• selective antagonists of calcium channels in gastrointestinal tract: 1-2 drops
of dicetel (pinaverium-bromide) 3 times a day;
• 1 tab. of riabal or spazmomen 3 times a day;
• M-cholinergic antagonist: 0.3-0.5 ml of 0.1% atropine subcutaneously; 1 ml
of 0.2% platifillin subcutaneously; 1 tab. of buscopan, duspatalin 3 times a day

b) prokinetics (regulate intestinal motility, depending on the body's needs):
• 1-2 tab. (10-20 mg) of mosapryd (mosyd) itopryd (primer, ganaton)3 times a
day 30 minutes before meal;
• 1 tab. (100 mg) of trimebutin (debrydat, trymebudat) 3 times a day or 1 amp.
of 1% solution intramuscularly 2-3 times a day;
• metoclopramide (cerukal) and domperidone (motilium) are ineffective. They
are used with absence of mentioned prokinetics and concomitant pathology of
gastroduodenal area – 1 tab.(10 mg) 3 times a day or intramuscularly;

c) opioid drugs - with more severe and prolonged diarrhea (at CE are used rarely):
• 15-60 ml of codeine;
• reasek (combined drug, atropine sulfate + diphenoxylate hydrochloride) -
starting dose - up to 4 tablets, repeated dose 2 tablets after 6 hours, then, if
necessary, 1-2 tab. 3 times a day;
• 0.004 g (2 capsules) of loperamide (Imodium) at acute diarrhea, then 0.002 grams (1 capsule) after every liquid stool, but not more than 6 capsules per day.

**Drugs for treatment of constipation**

a) drugs for inhibiting of water and sodium reabsorption in guts and secretion stimulating:

-drugs with antraglycosides (1-2 tab. of ramnil in the evening, buckthorn extract, senadexin, tysasen in similar doses, 1-2 packets of regulax in the evening);

-diphenylmethane derivatives (0.1 g of phenolphthalein 2-3 times a day; 1-3 dragee or suppositories of bisakodyl in the evening);

-15-30 g of castor oil (or 15 capsules) for 30 minutes;

-salt means (2 tsp of Carlsbad salt, salt "Barbara" with 0.5 l of warm water, ½ cup 2-3 times a day; 10-20 drops of guttalax (pikolax, laksygal) in the evening.

b) drugs that increase volume of intestinal contents (1 tab. of laminaryd 3 times a day after meal, 1-3 tbsp of lactulose (normaze) a day, brans, etc.);

c) agents that soften stool: 1-2 tsp of fatty oils (almond, olive, vaseline, etc.) 1-2 times a day

**Irritable bowel syndrome (IBS)**

**Irritable bowel syndrome (IBS)** - a functional intestinal disorder which lasts 3 or more months at least 3 days per month. It is characterized by recurrent abdominal pain and/or discomfort in the abdomen, and at least two following features - change of stool frequency, change of stool shape, relief after defecation.

IBS refers to functional intestinal disorders (according to Roman criteria of III revision, 2006), which also include functional bloating, functional constipation, functional diarrhea and nonspecific functional intestinal disorder.

An important role in etiology of the disease have genetic predisposition, psychological peculiarities of a patient (congenital and acquired), psycho-traumatic factors.

Other risk factors:

• alimentary;

• previous acute intestinal infections;

• primary chronic diseases of the digestive system (peptic ulcer, cholecystitis, pancreatitis, hepatitis, etc.).

• gynecological and other dyshormonal disorders;

• diseases of the spinal lower parts;
• any debilitating disease;
• intestinal microflora disorder (dysbacteriosis)
• postoperative adhesions in the abdomen

Pathogenetic factors:
• various disorders of intestinal tone and motility;
• increased sensitivity of intestine receptors to stretching;
• visceral hyperalgesia, which is formed following the so-called sensitizing factors (see risk factors);
• general dysfunctional neurovegetative disorders

Classification of IBS according to the Roman criteria III (2006)
1. IBS with constipation - hard or lumpy feces at least in 25% of cases
2. IBS with diarrhea - watery or liquid frequent feces at least in 25% of cases
3. Mixed IBS – alternation of constipation (hard feces) with diarrhea (watery feces)
4. Nonspecific IBS – no stool frequency disturbances, possible stool consistency disorders, prevalence of pain syndrome and meteorism

Basic (local, intestinal) symptoms:
• Abdominal pain of variable location, character and intensity, which temporarily decreases after defecation and appears (increase) after emotional or physical stress, sometimes after eating;
• Change in frequency (constipation, diarrhea) and consistency (hard, liquid) of stool;
• Defecation disturbances (difficulties, imperative or uncomplete bowel emptying feeling);
• Mucus in feces;
• Bloating, feeling of fullness and abdominal murmurs, tenesmus.

Other (general, extraintestinal) symptoms:
• Anxiety, constant worry;
• Mood lability;
• Rapid fatigability;
• Spasmodic headache (sometimes migraine-like);
• Sleep disturbance;
Often - cancerophobia

Objectively - painfulness during intestinal loops palpation (more often - spasmodic)

Diagnostic criteria of IBS:
1. Clinical and medical history:
   - typical intestinal and extraintestinal complaints now and in history;
   - inconsistency between complaints and real condition;
   - at objective examination - signs of emotional lability, locally - intestine painfulness during palpation

2. Laboratory and instrumental data:
   - light (usually) or moderate dysbiosis in feces analysis; no helminth eggs, signs of inflammation, maldigestion;
   - changes of thyroid and sex hormones level, other indices, as a rule, are without significant changes or depend on the primary background pathology;
   - absence of intestinal mucous membrane organic changes during instrumental studies (colonoscopy, passage, irrigoscopy) and histological examination of biopsy samples

Treatment of IBS
1. General measures:
   a) eliminating of stressful situations;
   b) psychological correction (psychotherapy, autogenic training, explanation of causes and developing mechanisms of existing intestinal disorders, keeping a diary of changes in health, etc.).
   c) sufficient sleep;
   d) keeping fit (regular physical exercises), regular outdoor walks;
   e) recommendations of nutrition correction:
   - with prevalence of diarrhea and pain - limitation of fatty, fried food, pickles, sweets, fizzy drinks, coffee, alcohol, food that increase gas production (milk, cabbage, beans, etc.);
   - with prevalence of hypotonic constipations - a high in cellulose, bran diet

2. Drug therapy - depends on the clinical course of IBS:
   a) IBS with diarrhea - antidiarrheal agents (2-4 mg of loperamide up to 3-5 days, enterosgel, medicinal plants of astringent action);
b) IBS with constipation - various laxatives (1-2 sachets of mukofalk 1-4 times a day, 10-30 ml of lactulose 1-2 times a day, 1-2 sachets of endofalk, etc.), prokinetics (mosapryd, itopryd), prebiotics (in addition to lactulose also pectins, alginates);

c) with abdominal pains (any variant of IBS, including nonspecific) - antispasmodics (no-shpa, riabal, duspatalin, platifillin, etc.), selective calcium antagonists (dicetel), prokinetics, central acting drugs (antidepressants, benzodiazepines, sedative herbs, etc.).