**Russian Gastroenterology Association**

**Russian Group - Helicobacter pylori investigation**

Recommendations to conduct diagnosis and treatment of infection Helicobacter pylori in adults sufferred with gastric and peptic ulcer disease.

Accepted at the scientific conference "Gastric ulcer and carcinoma of the stomach. New sights on Helocobacter pylori", Moscow 21st April 1997.

Discussed at the round table

Attendees academician FI Komarov, academician VV Serov, academician VT Ivashkin, academician AV Kalinin, corresponding member IA Morozov, professor LI Aruin, professor PY Grigoriev, professor AR Zlatkina, professor SI Rapoport, professor GV Tsodikov, professor ON Minushkin, professor LP Miagkova, professor AA Sheptulin, professor VI Pogromov, MD VA Isakov, MD TL Lapina

The development of the given recommendations were necessitated by the following circumstances:

1.The Helicobacter pylori infecrion is one of the most spreadwide human infections nowadays.

2.The Helicobacter pylori bacterium is

1. a cause for developing chronic gastritis associated by helicobacter
2. the main factor for gastric and peptic ulcer pathogenesis
3. the main factor for developing stomach limphoma of low degree malignancy (maltoma)
4. carcinoma of the stomach.

3.Extermination (eradication) of Helicobacter pylori in stomach mucousa in infected patients will lead to:

1. vanishing inflammatory infiltrate in stomach mucousa;
2. considerable reducing frequency of gastric and peptic ulcer recurrences;
3. histologic remissing maltoma of the stomach;
4. probably, considerably reducing risk for developing of carcinoma of the stomach.

4.The Helicobacter pylori eradication in mucous membrane of the stomach in infected patients - the most difficult problem in the clinical gastroenterology associated with handling comlicated organisational tasks.

5.Nonadequate and/or incorrect treatment of the Helicobacter pylori infection brings to appearing amongst population a large number of bacterium strains resistant to effect of well-known antibiotics.

**The Helicobacter pylori infection diagnosis**

*Primary diagnosis*

The Helicobacter pylori infection diagnosis should be conducted by methods revealing directly the bacterium or the products of its activity in the patient's organism. The following methods satisfy above requirements:

1.Bacteriologic: inoculation of biopsy specimen of stomach mucousa to the differential-diagnostic test medium.

2.Morphologic: "gold standard" in Helicobacter pylori diagnosis: bacterium straining in the gistologic specimen of stomach musousa by Gimsa, toluidine blue, Vartin-Starri, Genta:

1. citologic - bacterium straining in smears of biopsy specimen of stomach mucouse by Gimsa, Gram.

3.Respiratory: identification of isotopes 14C or 13C in the air breathed out by the patient; isotopes are identified as a result of marked urea segregation in the patient's stomach under the influence of the Helicobacter pylori bacterium urease.

4.Urease: identification of urease activity in biopsy spesimen of stomach mucousa by means of placing it in liqiud or gel medium consisting substrat, buffer and indicator.

While keeping to all requirements to conducting methods and due sterilisation of endoscopic equipment, the Helicobacter pylori infection primary diagnosis is sufficient to start anti-Helicobacter therapy after discovering the bacterium by one of described above method.

*Eradication diagnosis*

Eradication means total extermination of the bacterium Helicobacter pylori (both vegetative and coccus forms) in the stomach and duodenum.

1.Eradication diagnosis should be conducted in 4-5 weeks after quitting anti-Helicobacter therapy course, or after quitting treatment of concomitant disease by any antibiotics or antisecretory medicines.

2.Eradication diagnosis is carried out by at least two methods describes above. Using method of direct identification of the bacterium in biopsy specimen of the stomach mucousa (bacteriologic, morphologic, urease) it is important to investigate 2 biopsy specimen taken from the body of the stomach and 1 biopsy specimen taken from antral section.

3.Citologic method should not be used for eradicating.

*Screening and other methods allowing to reduce the cost of the Helicobacter pylori infection diagnosis*

For screening they usually use methods based on identificationof specific anti-Helicobacter antibodies class A and G in plasma serum or in capillary blood of investigated patients.

1.Immunoenzyme analysis

2.Express-tests based on immunoprecipitation or immunocitochemie using patients' capillary blood as a test and colour potentiating reaction products.

Express-tests could be used for making cheaper the process of primary diagnosis of the Helicobacter infection, as positive test result allows toexclude expensive equipmentand using methods of direct diagnosis. Express-tests can't be used for identifying eradication after treatment.

**The Helicobacter pylori infection therapy**

*Indications to t****he Helicobacter pylori infection t****herapy*

As Russian and foreign scientific and clinical experience showed, gastric and peptic ulcer diseases associated by Helicobacter pylori is an indication to anti-Helicobacter therapy both in the period of acute condition and in the period of remission.

*Therapy principles*

The basic pronciple of therapy is using combined (3-component) therapy:

1. enable to eradicate the Helicobacter pylori bacterium min in 80% cases during the investigations conducted under control;
2. which has no noticable side effects thtat cause to stop using the medicines in more than 5% of cases;
3. effective if the course duration is 7-14 weeks.

*Schemes of treatment*

1. One-week 3-component therapy using H+-K+-AT Phase blockers standard dose2 times daily (foe example, omeprasol 20 mg 2 times daily, or pantaprasol 40 mg 2 times daily, or lansoprasol 30 mg 2 times daily) along with:
2. metronodasol 400 mg 3 times daily (or tinidasol 500 mg 2 times daily) + claritromicin 250 mg 2 times daily

OR

1. amoxicillin 1000 mg 2 times daily + claritromicin 500 mg 2 times daily

OR

1. amoxicillin 500 mg 3 times daily + metronidasol 400 mg 3 times daily
2. One-week 3-component therapy with bismuth:

bismush (colloid substrate bismuth, or gallat bismuth or subsalicilate bismuth) 120 mg 4 times daily along with

tetraciclin 500 mg 4 times daily + metronodasol 250 mg 4 times daily or tinidasol 500 mg 2 times daily

1. One-week "quadro"-therapy which makes enable to eradicate Helicobacter pylori strains resistant to the action of well-known antibiotics.

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