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# A CASE OF WORSENING CONDITION OF ARMED FORCES OF UKRAINE FIGHTER AFTER TREATMENT FOR CHRONIC NON-ATROPHIC GASTRITIS EXCERNSATION

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#### **Abstract**

A pathogenetic explanation was analyzed and given for the case of deterioration in the condition of a Ukrainian Armed Forces fighter after treatment for an exacerbation of his chronic non-atrophic gastritis. It was found that the treatment was carried out without a complete preliminary examination of the patient and without taking into account the interaction of drugs that were used in the treatment regimen and their effect on Helicobacter pylori infection, which was the reason for the sharp deterioration in the fighter's condition.

Key words: chronic non-atrophic gastritis; drug interactions in the treatment regimen.

Chronic non-atrophic gastritis (chronic gastritis type B) is one of the most common diseases of the gastrointestinal tract, caused by the widespread prevalence of Helicobacter pylori infection (HP) among the world population [1, 2]. The Maastricht consensus of all convocations determines the standard approach to the treatment of this pathology [3]. But does the standard approach always bring a positive effect and does it cause harm? In connection with this issue, there is an interesting

case of a negative effect that occurred in a Ukrainian Armed Forces soldier after a standard approach to treating his chronic non-atrophic gastritis.

The aim of the work is to study a case of deterioration in the condition of a Ukrainian Armed Forces fighter after standard treatment for exacerbation of chronic non-atrophic gastritis and give a pathophysiological explanation for it.

# **Material and Methods**

At the Centre for Progressive Medicine "Rea+Med", a case of worsening din the condition of S., 27 years old, a soldier of the Armed Forces of Ukraine, was analyzed after standard treatment for exacerbation of chronic non-atrophic gastritis.

When collecting anamnesis, it was found that the patient had been suffering from chronic gastritis since the age of 13, and the last exacerbation began 4 months ago, the manifestation of which was pain in the epigastric region radiating to the left hypochondrium, heartburn, and loss of appetite.

Patient in the hospital on 09.13.23. an esophagogastroduodenoscopy was performed and a diagnosis was made: "Erythematous gastropathy" and standard treatment was carried out, which included a PPI (omeprazole) and two antibiotics (tetracycline and clarithromycin) according to the generally accepted regimen for 10 days. However, the positive effect did not occur, the patient was prescribed continued treatment in the form of a PPI regimen (omeprazole) and a bismuth drug (Denol) according to the generally accepted regimen for 3 months, and after 2 months, given the lack of positive dynamics, he was added to this regimen alder preparation (Altan).

The patient's condition did not improve, but only worsened: persistent constipation was added to the previous symptoms (the patient had stool once every 6-7 days), which was the reason to contact a gastroenterologist at the Rea+Med center.

Before adjusting the treatment, the patient underwent additional studies: determining the level of acidity of gastric juice (pH-metry) according to the method of V.N. Chernobrovoy. [2], testing for HP infection using a breath test (HELIC test) in our modification [4] and ultrasound of the abdominal organs using the generally accepted method [5].

The studies were conducted in compliance with the basic bioethical provisions of the Council of Europe Convention on Human Rights and Biomedicine (dated April 4, 1997), the World Medical Association Declaration of Helsinki on ethical principles for scientific medical research involving human subjects (1964-2008), as well as the order Ministry of Health of Ukraine No. 690 dated September 23, 2009.

## **Results**

When determining the acidity level, the following data were obtained. pH-metry (according to the method of V.N. Chernobrovoy)

Patient: S., 27 years old.

Height: 173 cm, weight: 67 kg; entered: 20 cm

- 1. 6.12 6.40 11. 4.20 5.61
- 2. 6.18 6.48 12. 4.20 5.60
- 3. 6.14 6.43 13. 4.10 4.80
- 4. 6.00 6.45 14. 4.20 4.75
- 5. 6.01 6.48 15. 4.20 4.78
- 6. 6.08 6.40 16. 4.21 4.48
- 7. 6.03 6.53 17. 4.21 4.48
- 8. 6.03 6.54 18. 4.20 4.41
- 9. 6.05 6.54 19. 4.35 2.41
- 10.6.03 6.00 20. 4.41 2.40
  - 5. -
  - 4. -
  - 3. -
  - 2. -
  - 1. 20 20
  - 0. -

**Total:** 20 20

**Diagnosis:** Basal hypoacidity

pronounced total (organic)

14.01.24.

When conducting a HELIC test on 01/15/24. the following results were obtained: growth -8 mm (test - positive).

The patient was prescribed a treatment regimen that included: pancreatic enzymes (Panzinorm 20 thousand units) (1 tablet x 3 times a day with meals), selective antispasmodic Duspatalin 200 (1 capsule x 3 times a day 20 minutes before meals), probiotic Simbiter (1 sachet 1 hour after dinner), the course of treatment was 5 days, then, while continuing this regimen, anti-Helicobacter drugs were added: bismuth preparations (De-nol) (1 tablet x 3 times a day 30 minutes before meals and 1 tablet at night) and an antibiotic (Flemoxin Solutab: 0.5 g x 3 times a day before meals, 0.5 g - 30 minutes before the 4th De-nol tablet), course – 10 days.

As the treatment progressed, on the 3rd day the stool was restored, and on the 7th day the pain completely disappeared and the appetite improved. At the end of the course of treatment, the patient did not present any complaints.

### **Discussion**

This case can be explained from the point of view of the influence of gastric acidity on the digestion process, the effectiveness of the drugs and data on their compatibility. When a PPI is prescribed, Helicobacter pylori infection passes from an active (vegetative) form to an inactive (coccoid) form, which is not affected by antibiotics [1]. When the pH of gastric juice increases above 3.6, pepsinogen does not convert into pepsin, which sharply worsens the digestion process due to overload of the pancreas, which manifests itself in prolonged constipation and pain syndrome [2].

The combination of a PPI and the drug bismuth (De-nol) is not effective, since De-nol has a maximum effect on HP infection at a pH of 3.4-3.6, therefore, when the acidity level decreases to the level of pronounced hypoacidity, it is not effective [1].

Denol should not be used for more than 2 months in a row, since one of its side effects is the appearance of constipation, and also cannot be combined with the alder drug Altan, since bismuth and iron preparations sharply reduce its effectiveness [6, 7].

#### **Conclusions**

- 1. Failures in the treatment of Ukrainian Armed Forces fighters are associated with a primitive approach to diagnosis and a formulaic approach to treatment without taking into account the stage of chronic non-atrophic gastritis, as well as a lack of basic knowledge about the properties of drugs and their interactions.
- 2. The prospect of further research is a more in-depth analysis of such cases and recommendations for health authorities regarding the conduct of courses on the diagnosis and treatment of chronic helicobacteriosis under the guidance of a leading clinical pathophysiologist with extensive practical experience in this area.

## References

- 1. Avramenko AA, Gozhenko AI. Helikobakterioz. Nikolaev: "X- press poligrafiya". 2007: 336 [In Russian].
- 2. Avramenko AA, Gozhenko AI, Goydyk VS. Peptic ulcer disease (essays on clinical pathophysiology). Odesa: OOO "RA "ART-V". 2008: 304. [In Russian].
- 3. Malfertheiner P, Megraud F, O'Morain CA, Gisbert JP, Kuipers EJ, Axon AT. et al. Management of Helicobacter pylori infection the Maastricht V / Florence Consensus Report. Gut. 2017; 66(1): 6-30. doi: 10.1136/gutjnl-2016-312288.
- 4. Avramenko AO, Avramenko OA. The method of helicobacter infection testing in patients with chronic helicobacteriosis using the HELIK test. Patent of Ukraine. Патент України N128945. Biul. 2018; 19: 3. [In Ukraine].

- 5. Bhargava S, Bhargava SK. Principles and Practice of Ultrasonography. New Delhi-London: Jaypee Brothers Medical Publishers. 2021: 536.
  - 6. https://apteka911.ua/ua/shop/de-nol-tabl-v-o-120mg-112-p155 [In Ukraine].
  - 7. <a href="https://mozdocs.kiev.ua/likiview.php?id=2727">https://mozdocs.kiev.ua/likiview.php?id=2727</a> [In Ukraine].

### **Author Contributions**

Conceptualization, (Avramenko A.A.); methodology, (Avramenko A.A.); formal analysis, (Magdenko A.K.); data curation, (Dymo V.N.); writing—original draft preparation, (Magdenko A.K.); writing—review and editing, (Dymo V.N.); supervision (Avramenko A.A.).

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# **Informed Consent Statement**

The retrospective analysis of material was used. Written informed consent from the patients was not necessary to publish this paper.

# **Data Availability Statement**

The data presented in this study are available on request from the corresponding author.

# **Conflicts of Interest**

The authors declare no conflict of interest.