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BLEEDING INDUCED BY NON-STEROIDAL ANTI-INFLAMMATORY DRUGS IN THE UPPER GASTROINTESTINAL TRACT

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Relevance : At first glance, it is paradoxical that more people suffer from gastrointestinal bleeding, against the background of an emerging trend towards a decrease in the incidence of peptic ulcer disease, especially gastric ulcers. This trend is largely associated with the widespread use of non-steroidal anti-inflammatory drugs (NSAIDs) , which cause erosions and ulcers of the gastrointestinal tract. A decrease in the cytoprotective properties of the gastric mucosa, caused by a decrease in the synthesis of prostaglandins in the stomach under the influence of NSAIDs, is the main cause of erosive and ulcerative lesions of the upper gastrointestinal tract. [1,6,13]. When taking NSAIDs and blocking COX-1, all these functions of PG are suppressed, which leads to hypersecretion and an increase in the acidopeptic activity of gastric juice, an increase in its aggressive properties, a weakening of the protective properties and damage to the mucous membrane of the stomach and duodenum. In this case, all three levels of protection of the gastric mucosa (pre-epithelial , epithelial and post-epithelial, represented by regional blood supply and microcirculation) are reduced, conditions are created for erosive and ulcerative damage to the gastric and duodenal mucosa, and prerequisites for the chronicity of the pathological process arise. It is also necessary to note the risk factors for the development of erosive and ulcerative damage to the gastric and duodenal mucosa when taking NSAIDs [1,11,15].

- age over 65 years (4 times increased risk of complications);
- history of peptic ulcer disease (increases risk by 14–17 times!);
- combined use of NSAIDs with glucocorticoids , anticoagulants, antiplatelet agents , cyclosporine A and methotrexate ;
- high doses of NSAIDs and combinations of drugs in this group;
- the presence of concomitant diseases (coronary heart disease, essential arterial hypertension, liver or kidney failure);
- long-term treatment with NSAIDs;

Another characteristic of the current period is a more than twofold increase in the number of elderly and senile patients, including those suffering from ulcerative bleeding. Mortality from acute gastrointestinal bleeding of ulcerative etiology is 5-20%; mortality after emergency surgery for recurrent ulcerative bleeding is 4-73%, and among elderly patients it exceeds 80 % [2, 8, 10].

The assertion of some authors that Helicobacter deserves special discussion. pylori (Hp) colonizing the stomach increases the risk of erosive and ulcerative lesions of the gastric and duodenal mucosa by 1.5 times when taking NSAIDs, and a course of eradication of these bacteria can prevent the development of NSAID gastritis [6, 8, 13]. The authors of the "Maastricht Consensus 1-5" also strongly recommend that all patients scheduled for a course of

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NSAID treatment undergo pre- eradication Hp [2,3,12,15].
gastroduodenal bleeding today includes primary endoscopic hemostasis, the effectiveness of which in ongoing ulcerative gastroduodenal bleeding ranges from 97% to 100 % [4,14] . In combination with modern antiulcer drugs, the most effective of which are proton pump inhibitors (PPIs), this can significantly reduce the frequency of recurrence of ulcerative gastroduodenal bleeding after primary endoscopic hemostasis from 12-42% to 2.7-8.9% [3,7,16]. All this allows us to consider endoscopic hemostasis in combination with modern antiulcer therapy PPIs as an alternative to surgical treatment.
The aim of the study was to determine the role of nonsteroidal anti-inflammatory drugs in the development of bleeding from the upper gastrointestinal tract.
Material and methods . This report is based on an analysis of the treatment outcomes of 1,155 patients with upper gastrointestinal bleeding treated in the surgical department of the Bukhara branch of the Russian Scientific Center for Emergency Medicine from 2014 to 2020. Patients' ages ranged from 16 to 72 years. Men accounted for 71%, women 29%, and 26.2% of patients were over 60 years of age.
According to the etiologic feature, the patients were divided into 2 groups: Group 1, patients with gastrointestinal bleeding of ulcerative etiology accounted for 765 (66.3%) patients. Of these, bleeding due to chronic ulcers of the stomach and duodenum accounted for 498 (64.8%) patients, acute ulcer of drug genesis, as a result of drug exposure to the mucous membrane of the stomach and duodenum - 248 (32.4%) patients. Peptic ulcer of gastroenteroanastomosis , complicated by bleeding - 19 (2.48%) patients. In the second group, patients with gastrointestinal bleeding of non-ulcer genesis accounted for 390 (33.7%) patients. Of these, 259 (66.4 %) patients had bleeding from the esophagus and stomach varices due to portal hypertension, Mallory-Weiss syndrome in 33 (8.4%) patients, in 54 (13.8%) patients the source of bleeding was malignant tumors of the stomach and intestines, 44 (11.2%) - erosive hemorrhagic gastritis, duodenitis (Table 1).

Table 1.

The main causes of upper gastrointestinal bleeding

Reasons	1g (n)	2 g (n)	Sick	%
Peptic ulcer disease	498		498	43.1
Erosions of the stomach and duodenum	248	44	292	25.3
Varicose veins of the esophagus and stomach		259	259	22.4
Peptic ulcer gastroanastomosis	19		19	1.6
Tumors of the esophagus and stomach		54	54	4.7
Mallory-Weiss syndrome		33	33	2.8

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Total	765(66.3%)	390(33.7%)	1155	100%

It should be noted that in 86 (22%) patients of the 2nd group, gastrointestinal bleeding was facilitated by the use of NSAIDs. In total, bleeding due to NSAIDs was 334 (43.6%) patients out of all ulcerative bleeding. The severity of the patient's condition and the degree of blood loss were classified according to A.I. Gorbashko , distinguishing mild, moderate and severe degrees. Mild blood loss in the 1st group was in 428 (55.9%), moderate in - 220 (28.7%), severe in - 117 (15.3%) patients. In the 2nd group, among gastrointestinal bleeding of non-ulcer genesis, mild blood loss was in - 259 (66.4%), moderate in - 92 (23.5 %), severe in - 39 (10%) patients.

performed endoscopic examination in all patients of group I to determine the source and assess the degree of bleeding according to the Forrest classification (1987). FI A was detected in 76 (9.8%), FI B - 152 (19.8%), FII A - 334 (43.6%), FII B - 123 (16%), FIIC - 66 (8.6%), FIII - 14 (1.8%) patients. Hemoglobin levels ranged from 31 to 98 g / l. In all patients with bleeding of ulcerative etiology, endoscopic clipping of the bleeding vessel or diothermocoagulation was performed to achieve hemostasis . In case of bleeding from varicose veins of the esophagus and stomach due to portal hypertension, endoscopic hemostasis was performed by ligating the bleeding node. After completion of endoscopic hemostasis, all patients received antisecretory therapy with PPIs. Losec was administered at a maximum dose of 160 mg per day as a continuous intravenous infusion until the risk of recurrent bleeding was eliminated (usually within 3-4 days), then 40 mg per day per Patients with a low risk of recurrent ulcerative colitis also received antisecretory therapy with proton pump inhibitors. Losec was used at a dosage of 40 mg/ day . os . All patients received anti-Helicobacter therapy: Amoxicillin 2 g per day, Clarithromycin 1 g per day for 7-10 days, Denol 240 mg twice a day for 15 days. Dynamic EGDS were performed in all patients on days 2, 3 (only in patients with a high risk of recurrence of UGDB), 4, 7, 14 and 28 from the initial examination. If necessary (active bleeding, exposed thrombosed vessels, or a fixed thrombus-clot) during dynamic EGDS, recurrent bleeding was prevented using the previously used hemostasis method. Complex basic and conservative therapy was carried out: infusion therapy, hemostatic agents, transfusion of fresh frozen plasma, erythrocyte Masses, etc. Early endoscopic examination served as the most effective means of identifying the cause of bleeding. So-called delayed operations were performed on patients with stopped bleeding in the case of massive blood loss, as well as in case of recurrent bleeding regardless of the degree of blood loss, usually within 24 hours. With persistent hemostasis and moderate blood loss, patients were operated on during the "cold" period during the first 2 weeks from admission. In patients with gastroduodenal bleeding, recurrent bleeding from the ulcer was observed on days 3-4. In 62 patients, bleeding was stopped by repeated endoscopic clipping or diothermocoagulation . In 55 patients , hemostatic measures and endoscopic hemostasis were ineffective, which was an indication for emergency surgery. 16 (29%) patients underwent Billroth - I gastric resection , 14 (25.4%) - Billroth - II gastric resection , 13 (23.6%) underwent ulcer excision with Judd pyloroplasty . In extremely severe conditions, 12 (21.8%) patients underwent gastroduodenotomy with suturing of the vessel at the bottom of the ulcer. Mortality in the group of operated patients with gastroduodenal bleeding was observed in 4 (7.2%) patients. The predominant causes were: pulmonary embolism and acute cardiovascular failure. Of 390 patients with gastrointestinal bleeding of non-ulcer genesis, due to the ineffectiveness of

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endoscopic hemostasis and hemostatic 44 (11.2%) patients with esophageal varices were operated on due to the risk of recurrent bleeding and therapy After portal hypertension in the stage of decompensation, complicated by bleeding. The Pacior operation was performed - gastrotomy , suturing of the vessels of the cardioesophageal zone in 11 (2.8%) patients, and in patients with polyposis and a gastric tumor complicated by bleeding at the height of bleeding, an operation was performed - gastrotomy , suturing of bleeding vessels in 34 (8.7%) patients. Postoperative mortality in patients in this group was observed in 11 (12.3)%) patients. High figures of postoperative mortality are largely determined by forced intervention in seriously ill patients with advanced tumor processes or with profuse bleeding from the veins of the esophagus against the background of decompensated cirrhosis of the liver.

Conclusions.

1. It has been reliably established that in patients with acute gastrointestinal bleeding of the upper gastrointestinal tract, in 43.6% of cases a connection was found with the use of NSAIDs, which should be taken into account when considering issues of the epidemiology of bleeding from chronic and acute ulcers of the stomach and duodenum.
2. In the current socio-economic conditions and the current healthcare system, it is of utmost importance to regulate the sale of NSAIDs in pharmacies, in accordance with medical prescriptions, and provide rational pathogenetic treatment of peptic ulcer disease in outpatient settings, as well as prevent exacerbations and complications of peptic ulcer disease, which is impossible without close cooperation between surgeons and gastroenterologists.

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