

Bleedings from acute gastric and duodenum ulcers in clinical practice

Mustafaqulov G.I.

Tashkent Medical Academy

Annotation: There are presented the reasons of Sharp stomach ulcer bleeding (or intensification) duodenal ulcer or ulcer bleeding while applying glucocorticoid hormones on patients with thrombocytopenic purpura. It is recommended to change GCH application from per os to inhalation or intravenous injection. It is proved that there is a direct connection between recommendation to endoscopic investigation and bleeding, stomach ulcer and duodenal ulcer from the quantity of thrombocytes. And it is also recommended to make endoscopic investigation on thrombocytopenic purpura during clinical remission.

Keywords: thrombocytopenia, glucocorticoids, complication, acute ulceration, ulcer bleeding, tactic

The syndrome of gastrointestinal bleeding complicates the course of many diseases of a digestive tract and can be the reason of a lethal outcome. Among the reasons of bleedings from the upper sections of a digestive tract, on the first place there are erosive and ulcer defeats of a stomach and a duodenum. The mortality percentage coming out from upper sections bleeding of alimentary tract fluctuates from 3,5-7% in the USA, to 14% in Great Britain. Acute ulcers of digestive organs are observed at any age, both at newborns, and at persons of senium. Frequency of acute ulcer defeats in advanced age reaches 74, 6%. Detection of acute erosion and ulcers usually happens when patients are surveyed concerned with the expressed symptoms of a dyspepsia, but mostly – when such complications as bleedings occur, in 60-70% of cases, or perforation in 0,5-3% of cases of acute ulcers. Quite often acute erosion and the ulcers of AT complicated by bleeding, arise at patients after glucocorticosteroid therapy. For this kind the multiple defeats, a preferential location of ulcers on a greater curvature of a stomach, a latent current are typical. Among GCS Prednisolone (per os) is considered as a standard preparation for pharmacodynamics therapy, especially at patients with thrombocytopenia. Hormones cause the general disruption of the DT function in 24,4% of cases, and ulcerogenic effect of preparations, especially when taking them perorally, is shown in 3,5-7,5% cases. Complications of GCS therapy from the DT side are connected with duration, a big dosage and a wrong reception of GCS hormones per os. According to G.M.Chernyaevskaya and coauthors (1996), at 26,9% of patients, N.A.Romanova and coauthors (1996), at 15,4% of patients treated with GCS concerning other pathology, the reason of stomach ulcer development is stomach hyper secretion. Acidogenic function of a stomach according to an intragastral pH-metria was considerably increased (pH $1,1 \pm 0,06$) at all patients (by Vakhrushev Ya. M and others, 1997). In certain cases DT ulcers became complicated with rupture or bleeding after taking GCS hormones. According to the published data, about 5% of patients with thrombocytopenic purpura note acute GIB. The lethality at GIB from acute ulcers at patients in the intensive therapy departments reaches 80%, and the number of patients with thrombocytopenia grows every year. In the acute phase or thrombocytopenic purpura relapse any trauma of a mucosa leads to intensification or relapse of GIB. Taking into consideration this tactic, maintaining patients with GIB at thrombocytopenia has its own peculiarities.

Materials and methods

According to our data, taking of GCS hormones enterally often gave complications from DT side, in particular, as gastroduodenitis at 22 (23,1%), stomach ulcers at 6 (6,3%), duodenal ulcers (or aggravations of the last) at 5 (5,3%), exacerbations of colitis at 2 (2,1%), discomfort of DT at 10 (10,5%), a stomach pains at 5 (5,3%). At only 50 (52,6%) from 95 (adults and children) patients with the idiopathic thrombocytopenic purpura were revealed complications from a gastrointestinal tract after enteral taking of GCS hormones. Bleeding from stomach and duodenal ulcers is noted at 6 (12%) patients. In the anamnesis of 10 (22,2%) patients have post-hormonal erosive gastritis, 3 (10,3%) discomfort of DT and of 2 (5,6%) – colitis. Bleeding from stomach and duodenal ulcers are noted in the anamnesis of 2 (5,6%) patients. At 6 patients with GIB, at the moment of hospitalization, quantity of platelets were from one unit to $23 \times 10^9/l$. Ps – from 90 to 124 heart beat per min. A/P from 110/65 to 90/60 mm Hg. One of them with severe degree, 3 of them

average degree, 2 of them with mild degree of post-hemorrhagic anemia. Duration of a disease made up from 8 months to 26 years and patients have received treatment for this period of time from 1 to 10 and more times. All patients received conservative treatment: all-strengthening means, hemostatic preparations, GCS hormones – Prednisolone or dexamethasone in injections intravenously or in the form of inhalation, at the same time erosion and stomach and duodenal ulcers treatment. GCS were prescribed in 1-1,5 mg/kg per day.

In all cases, according to coagulogramma hypocoagulation was fixed. In myelogram: the marrowy punctant in all patients is cellular enough, type of a hematogenesis is normoblastic, the maintenance of lymphocytes is normal, megacariocytes in enough or much quantity, but the majorities of them don't contain plates. At patients with gastrointestinal bleeding quantity of platelets was lower than $30 \times 10^9/l$.

Endoscopic research of patients with gastrointestinal bleeding was carried out during proceeding gastrointestinal bleeding under the strengthened hemostatic therapy. While endoscopic research any additional trauma can become a bleeding source, including local injectional endoscopic hemostasis, considering it, to other patients endoscopic research was carried out after treatment with clinical remission.

Results and discussion

At 2 patients with thrombocytopenic purpura (33,3%) platelets rose to 50 thousand and on the third day hemorrhagic syndrome in the form of GIB was stopped. Clinical remission was received on about 10 days.

At 4 (66,7%) patients platelets reached 180 thousand, on 8 days in average. At all 4 patients the phenomena of a hemorrhagic syndrome in the form of GIB on the second or third day of treatment was stopped and clinical-hematological remission was received.

Hemodynamic indicators of all patients were normalized. Hemoglobin of 2 patients rose to norm; the others were discharged with mild degree of anemia.

Clinical supervisions testify that during receiving GCS hormones per os in big doses, and for a long time, patients with TP can have complications from gastrointestinal tract's side. Long hormonal therapy results in insufficiency of adrenocortical, it, in turn, suppresses secretion of a gastrointestinal tract, leads to infraction of mucosa integrity and gastritis development, duodenitis or ulcers in a digestive tract. Vascular endothelium at thrombocytopenia, deprived of platelets' angiotrophic function, becomes fragile, highly permeable, especially at patients with the expressed hemorrhagic syndrome and at hormonal defeat of DT and often is complicated with bleeding, thus, any trauma during endoscopic research leads to GIB intensification. Endoscopic research is conducted at proceeding gastrointestinal bleeding under intensive hemostatic therapy.

Conclusion

No matter how carefully the preparations choice was carried out, the mode of dosing and a type of therapy, usually it is impossible to completely prevent development of these or those side effects while taking glucocorticoid hormones. Clinical supervision testify that while taking GKS hormones per os in big doses, and also protractedly at patients with ITP, may occur complications from a digestive tract in the form of sharp gastritis, duodenitis, ulcers of DT or an exacerbation of existing chronic pathologies, haemorrhagia, and sometimes perforation development. Taking all these into consideration, hormonal preparations are translated from per os into form of inhalation or intravenous injection increasing doses. Endoscopic research is conducted at continuing gastrointestinal bleeding under intensive hemostatic therapy, during endoscopic research any additional trauma may become a bleeding source. Endoscopic research and treatment should be carried out after receiving clinical remission.

There is a certain interrelation between number of platelets and clinical display. When the number of platelets is higher than $30-50 \times 10^9/l$ the current (progress) of disease is often asymptomatic. When the quantity of platelets is lower $30 \times 10^9/l$ there are hemorrhagic complications, including GIB at patients with DT diseases.

It is important to know that definition of the reason of bleeding is possible only by means of laboratory methods. For a quick identification of the possible reason of bleeding, connected with platelets it is necessary to carry out the following actions:

1. To define bleeding time (from an ear lobe, from both parties).

2. To carry out the APTT test (activated partial thromboplastin time).
3. To define PT (prothrombin time.)
4. To define quantity of platelets in unit of volume.
5. To define fibrinogen level.

The analysis of results of these tests will help to make the following assumptions of bleeding reason:

When time of bleeding lengthens, small quantity of platelets and normal indicators of APTT and PT, thrombocytopenia is diagnosed as the primary reason for bleeding.

Literature

1. Abdulkadyrov KM // The latest Hematology directory. Moscow, 2004, 358-402 p.
2. Mikhailov A.P, Danilov, A.M, Napalkov A.N, Shulgin V.L. // acute ulcers and erosions digestive tract: a training manual // St. Petersburg.: Publisher St. Petersburg State University, 2004 - 96.
3. Bokarev I.N. // hemorrhagic syndrome // practice of medicine. - M., 2006. - 127 p.
4. Vakhrushev JM, S. Romanov, Klimentova SV // Evaluation of the functional state of the stomach during prolonged treatment with prednisone in patients with bronchial asthma // The 7th National Congress on Respiratory Diseases. Sat Nauchn. mp. - M., 1997. – 43p.
5. Mustafakulov G.I. // Prevention of complications of the gastrointestinal tract during GC therapy in patients with ITP // Pathology (Tashkent). - 2006. - № 1. - 53-55 p.
6. Cook D.J., Fuller H.D., Guyatt G.H., et al. Risk factors for gastrointestinal bleeding in critically ill patient: Canadian Crit.CareTrialsGroups.// N.Engl.J.Med. – 1994. – Vol. 330. – p.397-381.
7. Kantorova I., Svoboda P., Scheer P., et al. Stress ulcer prophylaxis in critically ill patients: a randomized controlled trial// Hepatogastroenterology. – 2004. – V.51, №57.- p. 757-761.
8. Mustafakulov, G. I., & Ortiqboyev, F. D. (2023). Comprehensive approach to improving autoimmune thrombocytopenic purpura treatment results. //Международном научном журнале «Молодой ученый»-№5 (452) февраль 2023г.

9. Hand-assisted laparoscopic splenectomy: indications and technique /Bermas H., Fenoglio M.E., Haun W., Moore J.T. // JSLS. – 2004. – vol. 8910. – P. 69-71.
10. Mustafakulov G. I. et al. SPLENECTOMY FOR HAIRY CELL LEUKEMIA //Central Asian Journal of Medicine. – 2021. – T. 2021. – №. 4. – С. 160-167.
11. Mustafakulov, G. I., Atakhodzgaeva M.A., Anvarkhodzaeva Sh.G. Rtsults conservative treatment of autoimmune diseases thrombocytopenic purpura. //International Journal of Medical Sciences And Clinical Research. – 2023. – november, 23.
12. Мустафакулов, Г. И., Бахромов, С. М., Эргашев, У. Ю., Атаходжаева, Ф. А., Атаходжаева, М. А. (2021). Опыт применения ингаляций глюкокортикоидами у пациентов с иммунной тромбоцитопенией.
13. Mahevas M, Guillet S, Viallard J-F, et al. Rate of Prolonged Response after Stopping Thrombopoietin-Receptor Agonists Treatment in Primary Immune Thrombocytopenia (ITP): Results from a Nationwide Prospective Multicenter Interventional Study (STOPAGO). Blood. 2021;138(Suppl 1):583. doi: 10.1182/blood-2021-152767.
14. 18. Doobaree IU, Newland A, McDonald V, et al. Primary immune thrombocytopenia (ITP) treated with romiplostim in routine clinical practice: retrospective study from the United Kingdom ITP Registry. Eur J Haematol. 2019;102(5):416–23. doi: 10.1111/ejh.13221.
15. 19. Forsythe A, Schneider J, Pham T, et al. Real-world evidence on clinical outcomes in immune thrombocytopenia treated with thrombopoietin receptor agonists. J Comp Eff Res. 2020;9(7):447–57. doi: 10.2217/ce-2019-0177.
16. Гематология и трансфузиология. 2020;65(S1):22. [Vinogradova OYu, Bobkova MM, Chernikov MV, et al. Sustaining off-treatment remission in immune thrombocytopenia (ITP) patients with complete stable response to thrombopoietin receptor agonists (TPO-RAs). Gematologiya i transfuziologiya. 2020;65(S1):22. (In Russ)]