

IMPORTANCE OF DETECTION OF HEPSIDINE AND INTERLEUKINS IN IRON DEFICIENCY ANEMIA

Makhmonov Lutfulla Saydullaevich*; Mamatkulova Feruza Khaydarovna;**

Kholturaeva Dilnoza Fakhruddinovna*;**

Muyiddinov Zuhriddin Ziyadullaevich****

*Head of the Department of Hematology,
Samarkand State Medical University,
UZBEKISTAN

Email id: lutfullamakhmonov@gmail.com

**Assistant,
Department of Hematology,
Samarkand State Medical University,
UZBEKISTAN

Email id: mamatkulovaferuza11@gmail.com

***Clinical Resident,
Department of Hematology,
Samarkand State Medical University,
UZBEKISTAN

****Clinical Resident,
Department of Hematology,
Samarkand Medical Institute,
UZBEKISTAN

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ABSTRACT

The paper presents our own data on the study of the content of hepcidin in the blood in iron deficiency anemia and in anemia that developed in patients with rheumatoid arthritis and bacterial infections. Our own data on the content of hepcidin in practically healthy people are presented. The results of the study indicate an extremely low level of hepcidin in iron deficiency anemia, while in patients with anemia of chronic diseases, the content of hepcidin is significantly high. There were no differences in the levels of hepcidin in people with ACD in rheumatoid arthritis and in bacterial infections of various localizations. The study of the level of hepcidin in the blood serum can be used in the algorithm for the differential diagnosis of iron deficiency anemia and functional iron deficiency.

KEYWORDS: Iron Deficiency Anemia; Anemia Of Chronic Diseases; Hepcidin; Cytokines.

REFERENCES:

1. Deicher R, Horl WH. New insights into the regulation of iron homeostasis. *Eur. J. Clin. Inv.* 2006;36:301–8.
2. Smirnov A. The iron – regulatory liver hormone hepcidin and its place in the system of innate immunity. *Rossiyskiy zhurnal gastroenterologii, hepatologii, koloproktologii.* 2010;5:10–4. (in Russian)
3. Park CH, Valore EV, Waring AJ. et al. Hepcidin: a urinary antibacterial peptide synthesized in the liver. *J Biol. Chem.* 2001;276:7806–10.
4. Levina AA, Kazyukova TV, Tsvetaeva NV, Mamukova YuI, Romanova EA. et al. hepcidin as a regulator of iron homeostasis. *Pediatrics.* 2008;87(1):67–74. (in Russian)
5. Nicolas G, Bennoun M, Porteu A. et al. severe iron deficiency anemia in transgenic mice expressing liver hepcidin. *Proc. Natl. Acad. sci. USA.* 2002;99(7):4596–601.
6. Pigeon C, Ilying G, Courselaud B. et al. A new mouse liverspecific protein homologous to human antibacterial peptid hepcidin is overexpressed during iron overload. *J Biol. Chem.* 2001;276:7811–9.
7. Weinstein D, Cindy N, Roy C. et al. inappropriate expression of hepsidin is associated with iron refractory anemia: implications for the anemia of chronic disease. *Blood.* 2002; 100:3776–81.
8. Nemeth E, Rivera S, Gabajan V. et al. Il-6 mediates hypoferremia inducing the synthesis of the iron regulatory hormone hepcidin. *J.Clin. Inv.* 2004;113:1271–6.
9. Kawabata H, Tomosugi N, Kanda J. et al. anti-interleukin 6 receptor antibody tocilizumab reduces the level of serum hepcidin in patients with multicentric castleman's disease. *haematologica.* 2007;92:857–8.
10. Arnold J, Busbridge M, Sangwaiya A, Bhakal B, Paskaran P, Pal A, Geoghegan F, Kealey T. prohepcidin levels in refractory anaemia caused by lead poisoning. *Case Rep. Gastroenterol.* 2008;2:49–53
11. Aslam I, Jiyanboyevich YS, Ergashboevna AZ, Farmanovna IE, Yangiboevna NS. Muscle Relaxant for Pain Management. *JournalNX*, 8(1), 1-4.
12. Мамиров ВА, Ибрагимова ЭФ, Арслонова РР, Абдурахмонова ЗЭ. Эффективность комбинированной терапии при очаговой алопеции. *Вопросы науки и образования,* 2019;31(81):52-57.
13. Качалиев Х, Ибрагимова ЭФ. Всестороннее развитие молодежи-важнейшая функция высшего образования. In *Молодежь и медицинская наука в XXI веке.* 2019. pp. 309-310.
14. Матьякубова ФЭ, Ибрагимова ЭФ, Бахриева ЗД. Клинико-эпидемиологическая характеристика шигеллеза у взрослых на современном этапе. *Вестник науки и образования,* 2020;100(22): 64-72.

- 15.** Lutfulla M, Jasur R, Abdigaffor G. Темир ва витамин в12 танқисли камқонлиги юзага келишида helicobacter pylorini аҳамияти.2021.