PB2252 TREATMENT OF ANEMIA IN PATIENTS WITH GASTROINTESTINAL AND CHRONIC LIVER DISORDERS BASED ON PREDOMINANT PATHOGENETIC FACTOR.

**Topic:** 29. Iron metabolism, deficiency and overload

Olga Rybina¹, Valery Sakhin², Andrey Gubkin¹, Evgeniy Kryukov³, Oleg Rukavitsyn⁴

¹ hematology, Central Clinical Hospital of Russian Railways, Moscow, Russian Federation; ² hematology, Third Central Military Clinical Hospital named after A.A. Vishnevsky of the Ministry of Defense of the Russian Federation, Krasnogorsk, Russian Federation; ³ therapy, 3- Military medical academy of S.M. Kirov, Saint-Petersburg, Russian Federation; ⁴ hematology, 4- FSBI «Main Military Clinical Hospital named after N.N. Burdenko of the Ministry of Defence of Russia», Moscow, Russian Federation

**Background:**
Anemia is one of the most common complications of pathological gastrointestinal and chronic liver conditions. This blood disorder can have a negative effect on the underlying disease and reduce patients' quality of life. The etiology of anemia is often multifactorial. In most cases iron deficiency anemia (IDA), anemia of chronic diseases (ACD) and its combination are diagnosed. There are several guidelines for the diagnosis and management of anemia, however, they still show insufficient effectiveness in some patients.

**Aims:** To evaluate the feasibility and effectiveness of different types of anemia treatment for the persons with gastrointestinal and chronic liver disorders; to create approaches to personalized therapy for these patients.

**Methods:** We performed retrospective single-center study lasting from 2015 to 2022, including patients with diagnosed gastrointestinal and chronic liver disorders complicated by IDA or ACD. Patients were divided into two groups: IDA group and ACD group. In both groups we evaluated the effectiveness of different types of anemia treatment (treating the underlying disease only, oral iron, intravenous iron, erythropoiesis-stimulating agents (ESA), B vitamins), by comparing hemoglobin and erythrocyte values, red blood cell (RBC) indices before and after treatment.

**Results:** Overall 112 patients (45 women and 67 men) with diagnosed gastrointestinal and chronic liver disorders complicated by IDA or ACD were included in the study. The median age was 58 years (r: 21-90). 65 patients (58%) had a gastrointestinal and chronic liver disorders complicated by IDA, 47 patients (42%) had a gastrointestinal and chronic liver disorders complicated by ACD. Median follow-up was 10,2 (6-45) days from the start of treatment to the control of blood counts.

35 patients (31%) had a statistically significant (P=0.01) increases in RBC, RBC indices, hemoglobin (Hb) levels after intravenous iron supplementation. 25 patients (22%) with IDA were treated with oral iron. Clinical evidence of the effectiveness of this therapy was not obtained (P>0.05). Treatment with ESA as well as the treatment of the digestive system disorders only, was not carried out in this group.

10 patients (9%) with ACD who received ESA demonstrated a statistically significant improvement in Hb and RBC levels (p=0.01).

Therapy focused only on treating the underlying disease in 21 patients (19%) did not lead to an increase in Hb (p>0.05), although patients subjectively noted an improvement in well-being.

Iron replacement therapy that's prescribed for 12 patients (11%) with ACD did not have a positive effect on Hb, RBC, RBC indices. Moreover 3 patients noted the appearance of symptoms of dyspepsia after treatment. 9 patients (8%) from both groups were prescribed B vitamin supplements which had no effect on the red hematopoietic germ
(p>0.05). Most likely, this is due to the fact that the “point of application” for this treatment does not coincide with the pathogenesis of anemia in these patients.

**Summary/Conclusion:** Improvement in Hb and RBC levels was demonstrated in patients with IDA, who received intravenous iron, as well as in patients with ACD after ESA treatment. Other patients did not have positive effect after treatment. Therapy focused on blocking the main mechanism of anemia, will increase hemoglobin level in a shorter period, as well as avoid multiple side effects from therapy, which, in general, will improve patient's quality of life.