Polymorphism IL-28B is thought to be a prognostic factor of the course of hepatitis C infection (HCV) and response to the therapy in adults. It is believed that the presence of CC polymorphism increases the chance for therapy effectiveness and spontaneous elimination of HCV RNA particularly in patients infected with genotype 1b. The importance of that factor in children is unclear. Aim of the study: Evaluation of the usefulness of polymorphism IL-28B in monitoring the course of HCV infection in treatment-naive patients, qualified for therapy.

Methods and patients: The study included 21 children chronically infected (19 vertically infected) with HCV aged 2-15 years (mean 9.9): 9 girls, 12 boys. Identified polymorphism of IL-28B (rs12979860) was as follows: CC, CT, TT. Retrospective analysis of epidemiological data and course of infection was performed upon available documentation. Among all treated children (5 patients) only CC polymorphism was detected. Results: Polymorphism CC was in 11/21 (52.3%), CT in 8/21 (38%), TT in 2/21 (9.5%) patients. Among 10 children infected with genotype 1b: 5 (50%) have CC, 3 (30%) - CT, 2 - TT. Liver enzyme (ALT) was periodically increased in 15 children: 9 (42.8%) with CC, 4 (19%) - CT, 2 - TT. Presence of autoantibodies was determined in 8 children: 5 (62.5%) with CC, 2 (25%) - CT, 1 - TT. In 3 children spontaneous elimination of HCV RNA was diagnosed: 2 with CT, 1 - CC. In none of 5 children (genotype 1, 4, 3 in all CC) treated with pegylated interferon and ribavirin HCV RNA was detectable at 12 weeks of therapy (EVR).

Conclusion: The rate of CC polymorphism was higher, what can significantly contribute to response to the therapy. No relationship between polymorphism IL-28B and the natural course of infection has been found.