# Idiopathic Thrombocytopenic Purpura: Epidemiology in Kaunas Country and Treatment Standard

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## Objective

Idiopathic Thrombocytopenic purpura (ITP) is not rare pathologic which occurs to 1.6- 3.9 cases per 100 000 person annually. The most common appearance of this disease is hemorrhagic syndrome. Under platelets count of 30 x $10^9$/l patients start to get treatment. As first line treatment they get glucocorticoids, but according to literature not many people accomplish long term remission which leads to another treatment methods as thrombopoietins. However, we could not find enough studies about causes of resistance to glucocorticosteroids. Therefore, the aim of this research is to evaluate epidemiology of patients who have ITP in Kaunas Country and evaluate the treatment and its effectiveness.

## Methods

- The retrospective study was made by using medical histories of patients who have idiopathic thrombocytopenic purpura.
- All patients were divided into two groups: patients who are without treatment and patients who are still getting treatment with thrombopoietins.
- Data of gender, age, contagious, chronic and autoimmune diseases, appearance of haemorrhagic syndrome at time when the disease was diagnosed and during the treatment, medications dose, response to treatment of glucocorticoids and thrombopoietins, period of time when patients got treatment, remission time was compared between the groups.
- Data was analysed by using IBM SPSS Statistics 28.0.1.0 program.

## Results

- Patients who are in remission consist of 21 male and 22 female. 21 of these people were under 65 years old and 22 people were ≥65. The group of people that are getting thrombopoietin's consists of 10 male and 15 women and there were 19 patients <65 and 6 patients who are ≥65.
- Appearance of having autoimmune disease and hemorrhagic syndrome is higher in the group where patients are treated with thrombopoietins, when p= 0.020 and p=0.010 respectively (Fig. 1). Bleeding during treatment was not noticed in 39 patients in control group and 14 patients in research group, when p< 0.001.
- Splenectomy as treatment method mostly was chosen as 3rd line treatment in the group of patients who are in remission, while in other group where people get thrombopoietins splenectomy was chosen as 2nd line treatment for 4 patients and 3rd line treatment for 2 patients, when p- value =0.287.
- Eltrombopag as treatment method most of the time was chosen as 2nd or 3rd line treatment, while Romiplostinum was chosen as 4th line treatment. Medium dose of Eltrombopag, which the patient got, was 50 mg and it was used for approximately 88.0 weeks. Medium dose of Romiplostinum was 10 mcg/ kg and period of using this medication was 14.0 weeks.
- On a binary logistic regression analysis age, autoimmune disease, bleeding episodes during treatment were wound to be as predicting factors of resistance for glucocorticosteroids (Table 1).

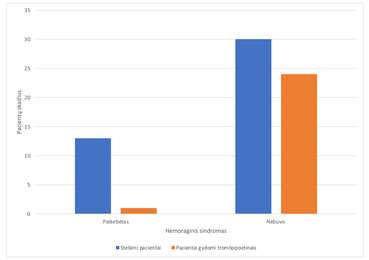


*Figure 1. Hemorrhagic syndrome appearance before treatment was started*

| Parameter | | B coef. | P- value | OR (95 proc. CI) |
|---|---|---|---|---|
| Age | Under 65 years vs 65 years and older | -1,733 | 0,013 | 0,177 (0,045-0,694) |
| Autoimmune disease | Have vs not have | 2,249 | 0,002 | 9,480 (2,243-40,071) |
| Bleeding appearance during treatmenr | Appeared vs do not appeared | -2,2775 | <0,001 | 0,062 (0,012-0,311) |

*Table 1. Statisticaly valuable factors impact to resistamce to glucocorticosteroids*

## Conclusions

Patients who get trombopoetins are more often under 65 years, have autoimmune disease, more often have haemorrhagic syndrome before treatment starts and during treatment and get late response to gliucocorticosteroids or there is no response, while in other group dominate early response to treatment. Futhermore, the average dose of Eltrombopag is 50 mg, which is usually used by 88,0 weeks, while Romiplostinum average dose is 10 mcg/kg and the period of treatment is 14,0 weeks. The resistance to gliucocorticosteroids is caused by younger than 65 years, having at least one autoimmune disease and appearance of bleeding during treatment.

## Key words

ITP, gliucocorticosteroids, thrombopoietins