

## Use of Romiplostim in patients with Idiopathic Thrombocytopenic Purpura

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### BACKGROUND AND OBJECTIVES

Romiplostim was approved in 2009 to treat adult splenectomized patients with chronic Idiopathic Thrombocytopenic Purpura (ITP) when refractory to other therapies. It is also considered second line treatment in non-splenectomized patients in which surgery is not advised.

To determine effectiveness and safety of romiplostim in patients with ITP who did not respond to 1st line or later treatments.

### MATERIAL AND METHODS

Observational and retrospective study. All patients treated with the drug from January 2009 to February 2014 were included. Data collected included demographic, clinical and analytical information, as well as dates of administration of the drug and dose administered.

### RESULTS

Seven patients diagnosed with ITP and non-respondent to previous treatment lines were included, three splenectomized and four non-splenectomized.

Previous lines of therapy varied among patients and included: nonspecific immunoglobulins, corticosteroids, danazol, rituximab and eltrombopag. Platelet count (PC) at the start of treatment was less than  $50 \times 10^9/l$  in 6 patients and higher in 1 patient. Three patients received fewer than six doses, so it was not possible to assess platelet response. The remaining four patients started treatment at a dose of 1 mcg/kg, maximum doses received ranged from 5-10mcg/kg. In the four patients who received more than six doses of the drug response was variable. The percentage of time with sustained PC (six weeks PC over  $50 \times 10^9/l$ ) in one patient was only 19% of the treatment time (99 weeks follow-up) while in the other three it was 73%, 85% and 97%. One patient had a PC of  $150 \times 10^9/l$  for four weeks with no dose reduction.

Patient	Weeks to reach sustained PC	Follow-up time (weeks)	Doses administered (mcg/kg)	Percentage of time with PC over $50 \times 10^9/L$	Sustained platelet count
1	-	1	3	0%	
2	1	147	1,2,3,4,6	97%	YES
3	16	80	1,2,3,4,5,6,7,8	85%	YES
4	3	6	2,3,5,6	50%	
5	1	116	1,2,3,4,5	73%	YES
6	2	2	1	50%	
7	36	99	1,2,4,5,6,7,8,9,10	19%	NO

### CONCLUSION

Romiplostim was prescribed **according to approved use in all cases** except for treatment discontinuation in the case of patients who did not respond. No serious adverse effects were reported. Effectiveness was very variable. A protocol for use including conditions for discontinuation in case of no response could improve use of the drug in our institution.

#### No conflict of interest to disclose

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