

RETROSPECTIVE APPLICATION OF THE TH2 SCORE IN A MULTICENTER COHORT OF ITP PATIENTS: A RELIABLE PREDICTIVE TOOL OR A SCORE IN NEED OF REFINEMENT?.

C. Giubbilei¹, M. Defina², S. Rosati³, M. Rocco³, A. Votto⁴, F. Simonetti⁵, F. Paoletti⁶, V. Carrai¹.

¹Hematology Unit, AOU Careggi; ²Hematology unit AOU Senese; ³Hematology Unit Azienda Sanitaria Toscana Centro; ⁴Hematology Unit, AOU Pisana; ⁵Hematology Unit, Ospedale Versilia; ⁶Hematology Unit, Azienda Sanitaria Nord Ovest.

BACKGROUND: Immune thrombocytopenia (ITP) presents a dual risk of bleeding and thrombosis. While TPO receptor agonists (TPOra) effectively restore platelet counts and reduce bleeding, they may not fully prevent thrombosis. CV events, observed even with low platelet levels, suggest inflammation plays a secondary role. SYKi (e.g., fostamatinib, FST) may help by mitigating inflammation. The TH2 score (Balitsky AK et al., Blood 2018) was designed to help clinicians balance thrombotic and bleeding risks in treatment decisions. However, its use lacks international consensus, and its effectiveness in preventing CV events through tailored therapy remains uncertain.

AIM: Retrospective evaluation of the TH2 score in ITP: its role in CV event prevention and therapy guidance.

MATERIAL & METHODS: We performed a multicenter retrospective analysis of 24 patients (11 females, 13 males; median age 71, range 32-90). At diagnosis: median age 63 (11-88), treatment lines 2 (1-5), platelet count $17 \times 10^9/L$

(3-94). 19 began first-line CCS therapy. TH2 scores were recalculated with therapy changes; non-switchers were excluded. Median CV risk factors/patient: 3 (0-5).

RESULTS: At baseline, 20/24 patients had a prothrombotic TH2 score: of them 8 started TPOra, 9 received FST, 2 IVI and 1 AZT. Detailed results are in Table 1.

CONCLUSION: In just 3 cases (15%), an increased TH2 predicted a CV event, but the score remained unchanged; on the contrary in one instance it actually decrease after the event. However patients continued treatment safely with FST in absence of newer events. In other cases, low platelet counts likely limited score changes during therapy shifts. Although limited sample size, TH2 score didn't optimally stratify patients, as it often indicated prothrombotic risk without translating into CV events. These findings highlight the TH2 score's limitations in stratifying patients, suggesting the need for refinement to enhance its clinical utility in guiding personalized therapy.

Email: cristina.giubbilei@unifi.it

Pts	TH2 (b)	TP1	TH2 (I)	TP2	TH2 (II)	TP3
1	0	TPO	1	TPO*	1*	FST
2	1	FST	-	-	-	-
3	0	FST	-	-	-	-
4	0	IVIG	0	TPO	0	FST
5	1	TPO	1	FST	-	-
6	1	FST	-	-	-	-
7	1	TPO	0	FST	-	-
8	2	FST	-	-	-	-
9	2	TPO	2	FST	2	AZT
10	1	FST	1	TPO	1	TPO
11	-1	TPO	-1	TPO	-1	FST
12	1	FST	-	-	-	-
13	-1	TPO	0	FST	-	-
14	0	TPO	0	FST	-	-
15	-1	TPO	0	TPO	0	FST
16	-1	AZT	0	FST	-	-
17	1	TPO	1	FST	-	-
18	0	AZT	0	FST	-	-
19	0	TPO	0	FST	-	-
20	1	FST	-	-	-	-
21	0	FST	-	-	-	-
22	1	IVIG	2	TPO*	1***	FST
23	1	TPO	1	TPO	1	FST
14	2	FST	-	-	-	-

TH2 (b): basal TH2 aka TH2 before I line; TP1: I line; TH2 (I): TH2 before II line; TP2: II line; TH2 (II): TH2 before III line; TP3: III line

*: one major thrombotic event

**: reduced TH2 score even in presence of a major thrombotic event