

Comparison between Hetrombopag and Eltrombopag combined with IST as first-line treatment for severe aplastic anemia

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INTRODUCTION

- Eltrombopag in combination with standard IST had efficacy in treatment-naïve **V/SAA**, and significantly **improved the rapidity and strength of hematologic response**.
- Hetrombopag** (HPAG) is also an oral non-peptide TPO-RA and its structure is similar to eltrombopag.
- Hetrombopag can promote the proliferation and differentiation of hematopoietic stem cells as eltrombopag.
- Hetrombopag was shown to have efficacy in rSAA and treatment naïve SAA.

AIM

To evaluate the difference in early treatment efficacy of SAA patients with HPAG/EPAG combined with IST as first-line therapy.

METHOD

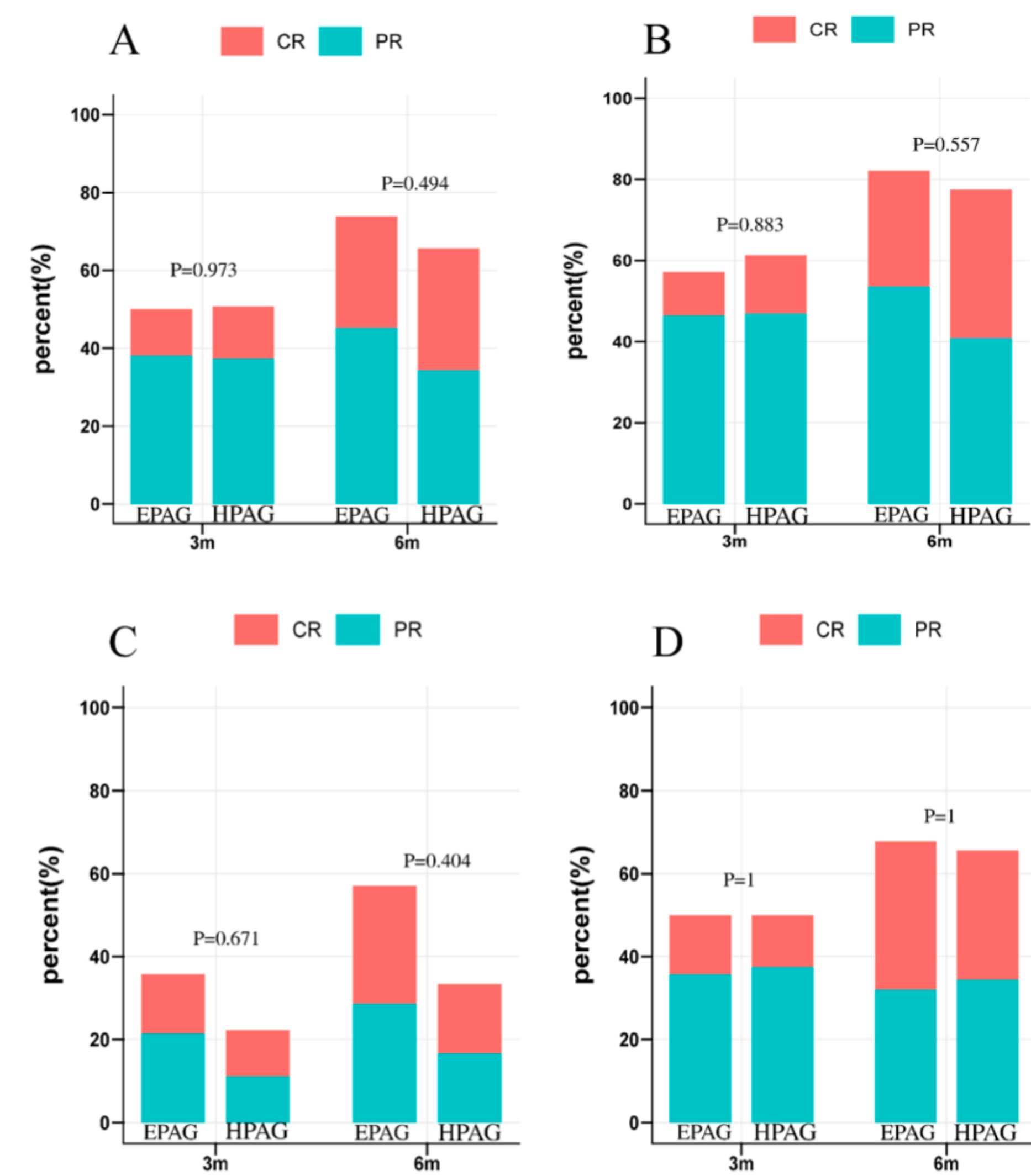
- Retrospective analysis
- 67 SAA/VSAA patients**, who were treated with **HPAG plus IST**
- 42 AA patients**, who were treated with **EPAG plus IST**

CONCLUSIONS

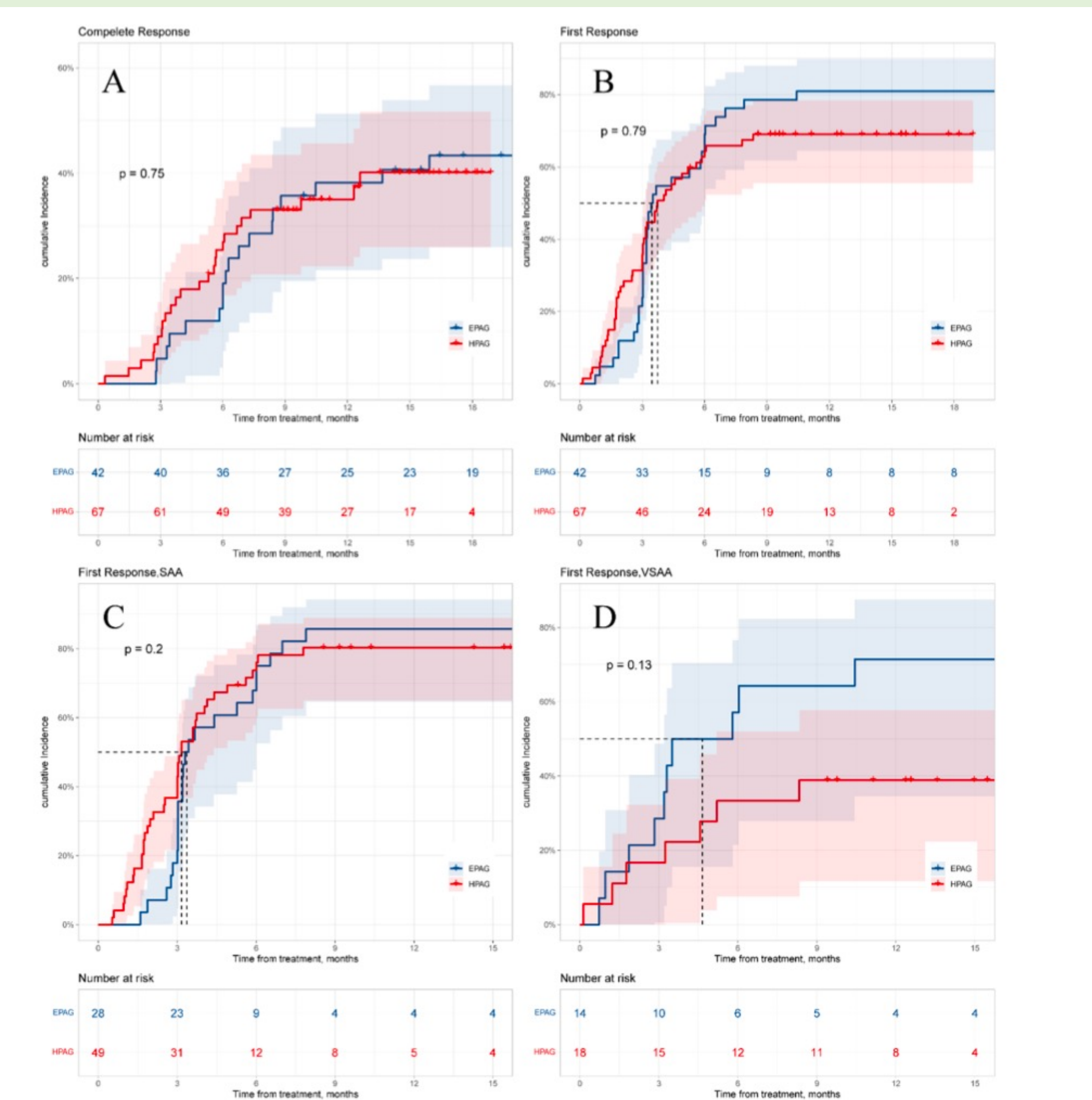
- HPAG** added to standard IST can provide SAA patients with similar efficacy to EPAG, while achieving **deeper and faster** hematologic responses.
- The **hepatic safety** of HAPG may be **superior to** EPAG.

RESULTS

Figure 1. Hematological Response to First-line Treatment by EPAG/HPAG in different month



A. Hematological Response to all the patients for treatment groups; B. Hematological Response to the patients of SAA for treatment groups; C. Hematological Response to the patients of VSAA for treatment groups; D. Hematological Response to the patients who used p-ATG for treatment groups



The cumulative incidences of a response are plotted according to treatment group and depending on the severity of aplastic anemia. Shaded areas are 95% confidence intervals. A. The time to complete response of all the patients by treatment group; B. The time to first response of all the patients by treatment group; C. The time to first response in SAA patients by treatment group; D. The time to first response in VSAA patients by treatment group. The median time to first response was 3.7 (95% CI, 3 to 6) in HPAG group and 3.5 (95% CI, 3.2 to 6) month in EPAG group(B). The median time to first response in SAA patients was 3.17 (95% CI, 3 to 4.4) month in HPAG group and 3.37 (95% CI, 3.03 to 6) in EPAG group (C). The median time to first response in VSAA patients was 4.65 (95% CI, 3.2 to NA) month in EPAG group and not reached in HPAG group (D).HPAG, hetrombopag; EPAG, eltrombopag; SAA, severe aplastic anemia; VSAA, very severe aplastic anemia; CR, complete response.

	Univariable regression			Multivariable regression			uni multi
	OR	95%CI	P	OR	95%CI	P	
All patients (n=109)							
TPO_RA(HPAG)	0.68	0.29–1.59	0.373				
ATG_type(r-ATG)	2.37	0.63–8.87	0.200				
Gender	1.30	0.58–2.94	0.527				
Age	1.00	0.98–1.02	0.906				
Severity(VSAA)	0.20	0.08–0.5	0.000	0.09	0.02–0.53	0.008	
Medical_history(≥6month)	0.28	0.09–0.89	0.031	0.22	0.05–1.11	0.067	
HGB	1.05	1.01–1.1	0.018	1.06	1.01–1.13	0.033	
ANC	5.41	1.24–23.61	0.025	1.00	0.1–9.8	1.000	
PLT	1.13	1.03–1.24	0.013	1.14	1–1.31	0.048	
ARC	1.04	1.01–1.08	0.016	1.00	0.95–1.05	0.989	
ALC	0.73	0.41–1.3	0.289	0.21	0.08–0.56	0.002	
SF	1.00	1.0–1.0	0.013	1.00	1.0–1.0	0.015	
PNH(positive)	3.66	1.27–10.52	0.016	7.28	1.61–32.86	0.010	
EPAG+IST group (n=42)							
ATG_type(r-ATG)	2.84	0.52–15.46	0.227				
Severity(VSAA)	0.29	0.07–1.22	0.090	0.24	0.01–4.91	0.354	
Medical_history(≥6month)	Inf		0.992				
HGB	1.09	1–1.19	0.043	1.25	1–1.56	0.054	
ANC	5.29	0.36–77.5	0.224				
PLT	1.22	1.02–1.44	0.027	1.50	1.02–2.22	0.041	
ARC	1.11	0.99–1.24	0.066	1.11	0.9–1.37	0.344	
ALC	0.74	0.25–2.21	0.596	0.44	0.06–3.15	0.413	
SF	1.00	1.0–1.0	0.034	1.00	0.99–1	0.065	
PNH(positive)	Inf		0.993				
HPAG+IST group (n=67)							
ATG_type(r-ATG)	1.05	0.09–12.21	0.970				
Severity(VSAA)	0.14	0.04–0.47	0.001	0.04	1.246	0.011	
Medical_history(≥6month)	0.75	0.19–2.98	0.683				
HGB	1.03	0.99–1.08	0.162	1.03	0.97–1.09	0.405	
ANC	6.72	1.08–41.92	0.041	1.10	0.06–19.13	0.947	
PLT	1.08	0.96–1.21	0.209				
ARC	1.03	1–1.07	0.076	1.04	0.98–1.09	0.205	
ALC	0.75	0.38–1.49	0.405	0.13	0.03–0.51	0.004	
SF	1.00	1.0–1.0	0.151	1.00	1.0–1.0	0.018	
PNH(positive)	2.49	0.78–7.94	0.122	21.83	2.21–215.81	0.008	

HPAG: Hetrombopag; EPAG: eltrombopag; IST: immunosuppressive therapy; ARC: absolute reticulocyte count; ANC: absolute neutrophil count; ALC: absolute lymphocyte count; SF: serum ferritin. Inf: There was a outliers, probably because the sample size was small.

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ACKNOWLEDGEMENTS

We thank the patients and their families and acknowledge the contributions of all researchers in this study.

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