# Efficacy and Safety of Avatrombopag in Children with Immune Thrombocytopenia Based on Disease Duration: Results from the Phase 3b Multicenter, Randomized, Double-Blind, Placebo (PBO)-controlled, Parallel-group Trial

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Poster #PB0364

## CONCLUSION

**Avatrombopag (AVA) is an effective, durable, and safe therapy in children with immune thrombocytopenia (ITP), regardless of disease duration.**

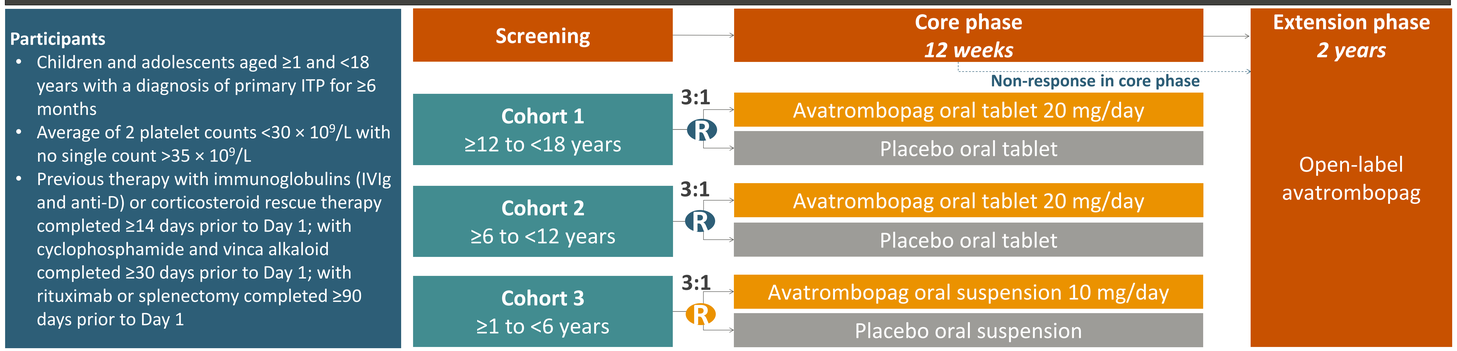
## BACKGROUND

- After failure of first-line therapies (e.g. corticosteroids or immunoglobulin) in pediatric immune thrombocytopenia (ITP), treatment options for children include immunosuppressants and thrombopoietin receptor agonists (TPO-RAs).
- AVA, a TPO-RA approved for the treatment of adult patients with ITP, could be a desirable option for pediatric patients as it is an oral agent taken with meals, without dietary food-type or timing restrictions, and is not associated with risk of hepatotoxicity
- Top-line results of the phase 3b, multicenter, randomized, double-blind, placebo-controlled, parallel-group trial to evaluate the efficacy and safety of AVA for the treatment of pediatric patients with immune thrombocytopenia have been previously reported[1].
  - The primary endpoint of platelet response (≥2 consecutive platelet counts (PC) ≥50×$10^9$/L without rescue therapy) was met by 81.5% for AVA versus 0% for placebo (p<0.0001).
  - The primary durable platelet response endpoint (achieving PC ≥ 50×$10^9$/L without rescue therapy in 6 of final 8 weeks of the 12-week core phase) was met by 27.8% for AVA versus 0% for placebo (p=0.0077).
- The aim of this analysis was to evaluate the efficacy and safety of AVA in children with ITP based on disease duration at enrollment.

## METHODS

- The phase 3b, multicenter, randomized, double-blind, placebo-controlled, parallel-group trial evaluated the efficacy and safety of AVA for the treatment of pediatric patients with ITP for ≥6 months (NCT04516967) (**Figure 1**).
- This post-hoc analysis evaluates the proportion of patients achieving platelet response and durable response as well as treatment-emergent adverse events (TEAEs) and TEAEs of interest based on length of disease duration at enrollment (<12 months versus ≥12 months).

**Figure 1: Phase 3b Study Design**




## RESULTS

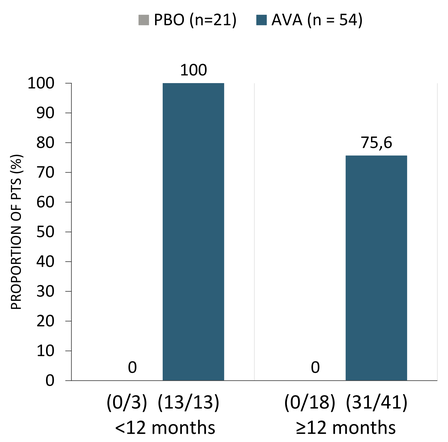
- Overall, 75 patients aged 1 to 17 years were enrolled; 54 were randomized to AVA and 21 to PBO (**Table 1**). 41 AVA and 18 PBO patients had a disease duration ≥12 months, and 13 AVA and 3 PBO patients had a disease duration <12 months.

**Table 1: Patient Baseline Characteristics**

| | AVA (N=54) | PBO (N=21) |
|---|---|---|
| Female, n (%) | 24 (44.4) | 12 (57.1) |
| Age, years (mean ± SD) | 8.9 ± 4.4 | 9.9 ± 4.1 |
| Race, n (%)<br>White<br>Asian | <br>48 (88.9)<br>3 (5.6) | <br>15 (71.4)<br>1 (4.8) |
| Platelet count ≤15 × $10^9$/L, n (%) | 45 (83.3) | 17 (81.0) |
| Platelet count (mean ± SD) | 12.0 ± 6.8 | 11.2 ± 6.6 |
| Bruising or bleeding, n (%) | 39 (72.2) | 16 (76.2) |
| WHO bleeding scale for the 7 days prior to baseline, n (%)<br>Grade 1<br>Grade 2 | <br>36 (66.7)<br>3 (5.6) | <br>14 (66.7)<br>2 (9.5) |
| Time from primary ITP diagnosis to first dose, weeks (mean ± SD) | 202 ± 164 | 225 ± 181 |
| ≥3 previous ITP medications received since diagnosis, n (%) | 37 (68.5) | 14 (66.7) |
| Prior TPO-RA use, n (%) | 40 (74.1) | 15 (71.4) |
| Prior TPO-RA response, n (%) | 17 (42.5) | 3 (20.0) |
| Splenectomy, n (%) | 2 (3.7) | 2 (9.5) |

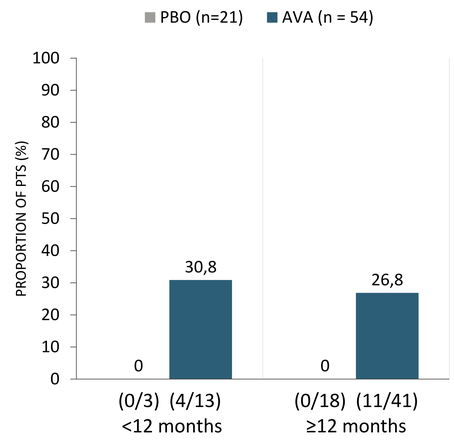
- The proportion of patients achieving a platelet response (**Figure 2**) and a durable response (**Figure 3**) was moderately higher in the disease duration <12 months group and in line with the overall population although the numbers are small.

**Figure 2: Platelet Response* to AVA Based on Disease Duration**




*achieving at least 2 consecutive PC ≥ 50×$10^9$/L without rescue therapy during the 12-week core phase

**Figure 3: Durable Response** to AVA Based on Disease Duration**




**achieving PC ≥ 50×$10^9$/L without rescue therapy in 6 of final 8 weeks of the 12-week core phase

- Exposure-adjusted TEAEs and TEAEs of interest were similar to placebo and between disease duration sub-groups (**Table 2**). There were no thromboembolic events, CTCAE grade ≥ 3 bleeding events, or deaths in either the AVA or PBO arms for either disease duration.

**Table 2: Exposure-adjusted Treatment Emergent Adverse Events and Treatment Emergent Adverse Events of Interest on based on Disease Duration at Baseline**

| | Disease Duration <12 Months | | Disease Duration ≥12 Months | |
|---|---|---|---|---|
| | AVA (N=13) | Placebo (N=2) | AVA (N=41) | Placebo (N=18) |
| Treatment-related TEAE: event rate*, [n, (%)] | **8.6** [13/13,100%] | **20.8** [2/2,100%] | **8.2** [37/41, 90.2%] | **11.2** [13/18, 72.2%] |
| TEAE leading to study drug being withdrawn: event rate*, [n, (%)] | **0.7** [1/13, 7.7%] | **0** | **0.2** [1/41, 2.4%] | **0** |
| Treatment-related Serious TEAE's: event rate*, [n, (%)] | **0** | **0** | **0.2** [1/41, 2.4%] | **0** |
| Thromboembolic events, n | **0** | **0** | **0** | **0** |
| CTCAE grade ≥3 bleeding event, n | **0** | **0** | **0** | **0** |
| Deaths, n | **0** | **0** | **0** | **0** |

*Event rate is calculated as 100 * (number of subjects with events/total exposure in subject-weeks); CTCAE= CTCAE, Common Terminology Criteria for Adverse Events; TEAE= Treatment-emergent adverse event; n= number; %= percentage

## REFERENCES

1. Grace R, et al. European Hematological Association 2024 Hybrid Congress; Madrid, Spain; June 13–16, 2024

## DISCLOSURES

Study was funded by Sobi, Inc.