Inhibition of C3 With APL-2 Controls Hemolysis and Increases Hemoglobin Levels in Subjects With Autoimmune Hemolytic Anemia (AIHA)

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Background

Autoimmune hemolytic anemia (AIHA) is a group of non-paroxysmal diseases characterized by hemolysis induced by antibody directed against self-antigens on the surface of red blood cells (RBCs); the resulting immune complexes can activate the classical complement pathway.

Methods

AIHA: To assess whether inhibiting complement C3 with APL-2 prevents both intravascular and extravascular hemolysis in AIHA patients, thus reducing anemia and its associated signs and symptoms.

Results

- Data presented are from the ongoing study. As of November 2018, a total of 21 subjects have been enrolled: 12 with CAD and 9 with wAIHA. Of the subjects with wAIHA, 7 were DATmono C3+; both CAD and wAIHA subjects were included.

Results Continued

Table 3. Treatment With APL-2 Has Been Safe and Well-Tolerated

Table 4. Exposures

Table 5. Hb Changes in CAD and wAIHA Subsets

Results Continued

Summary

- APL-2 increases Hb values both in CAD and in wAIHA (C3+) within the first weeks of treatment.
- APL-2 reduces both intra- and extravascular hemolysis, as shown by reductions in LDH, bilirubin and reticulocytes.
- APL-2 effect seems linked to C3+ in wAIHA, but further testing in other subtypes is required.
- DATmono C3− subjects is required to compare the APL-2 effect seen in wAIHA (C3+) to that of DATmono C3+ and C3− subjects in CAD.

Table 1. Subject Demographics and Baseline Characteristics

Table 2. Changes in Hematologic and Blood Chemistry Parameters

Table 3. Changes in Hematologic and Blood Chemistry Parameters

Table 4. Changes in Hematologic and Blood Chemistry Parameters

Table 5. Changes in Hematologic and Blood Chemistry Parameters

References


6. Morie A. Gertz, MD¹; Eloy Roman, MD²; Bruno Fattizzo, MD³; Merrill Shum, MD⁴; Wahid T. Hanna, MD⁵; Gregory L. Ortega, MD⁶; Darla Liles, MD⁷; Francis Senecal, MD⁸; Alice H. Shen⁹; Pascal Deschatelets, PhD; Cedric G. François, MD, PhD; Federico G. Grossi, MD, PhD; Hideki O. Kitamura, MD, PhD; El Mehdi D, Grossi FV, Creatini P; Alice H. Shen. Inhibition of C3 With APL-2 Controls Hemolysis and Increases Hemoglobin Levels in Subjects With Autoimmune Hemolytic Anemia (AIHA). Blood 2018;132(Suppl 1):Abstract 3623.