1. In low risk MDS patients, non 5q−, lenalidomide is an alternative therapeutic, when 5-aza has failed;
2. Lenalidomide used dosage, is lower than recommended by toxicity;
3. The response is later than we hope.

215 Update of open-label extension study evaluating the long-term safety and efficacy of romiplostim in thrombocytopenic patients with myelodysplastic syndromes (MDS)

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Background/introduction: Romiplostim increases platelet production by binding and activating the thrombopoietin receptor.

Methods: After completing a romiplostim study, MDS patients with platelets ≤50 × 10^9/L could enroll in an open-label extension. Based on previous dosing, patients received romiplostim at 250 mcg weekly or biweekly, or 500, 750, 1000, or 1500 mcg weekly, adjusting for platelets.

Results: As of December 2010, 56 patients had enrolled: previous treatments were romiplostim or placebo alone (44), with decitabine (7), or romiplostim with lenalidomide (5). Thirty-three patients (59%) were male; median age 71 (Q1–Q3: 64–77) years, median baseline platelets 29 × 10^9/L (Q1–Q3: 17–44 × 10^9/L), most common MDS subtypes RA (22 patients) and RCMD (16). Median treatment duration was 30 weeks (range: 5–158 weeks) in addition to previous studies (≤74 weeks); median average weekly dose was 750 mcg (Q1–Q3: 643–934 mcg). Most adverse events were mild-to-moderate; the most common being epistaxis (30%), cough (29%), and fatigue (27%). No neutralizing antibodies to romiplostim or thrombopoietin were detected. Transient peripheral blast increases in 2 patients (baseline: MDS-U and RA) resolved after romiplostim discontinuation. Three cases of AML progression occurred in patients who were IPSS-risk low or int-1 (parent study baseline) and MDS subtypes of RAEB-1 or RCMD. They had received 750 mcg romiplostim for 6, 36, and 49 weeks during this study; one died post-study. Three deaths occurred on study: cardiac arrest and intestinal obstruction after 83 weeks, cerebral hemorrhage after 30 weeks, and congestive heart failure after 17 weeks; none were attributed to romiplostim. One patient who withdrew from the study later developed AML and died from it. The annual rate of AML or death was 10.2% (95% CI: 4.9%–21.4%). Thirty-five patients (63%) reported ≥1 bleeding event(s); the incidence rate was 18.5/100 patient-weeks. Seventeen patients (30%) reported ≥1 clinically significant bleeding event(s); the proportion of patients with significant bleeding events and the proportion receiving platelet transfusions decreased over time. From Week 3 onwards, the median platelet count was ≥50 × 10^9/L; 49 patients (88%) had a platelet response (per IWG 2006). The median duration of platelet response at this cutoff was 20 weeks (Q1–Q3: 7–81 weeks).

Conclusion: In this study, long-term treatment of MDS patients with romiplostim for up to 3 years resulted in platelet responses in most patients with most adverse events being mild-to-moderate in intensity.