

**2009 Annual Meeting of the
American Society of Hematology**

Highlights Report

**Correlation Between Decreased Serum Ferritin and
Improved Liver Transaminases During Deferasirox
(Exjade®) Treatment in Iron-Overloaded Patients with
Myelodysplastic Syndromes**

***N Gattermann, M Schmid, A Guerci-Bresler, M Della
Porta, K Taylor, D Habr, G Domokos, B Roubert and
P Fenaux***

Abstract 3803

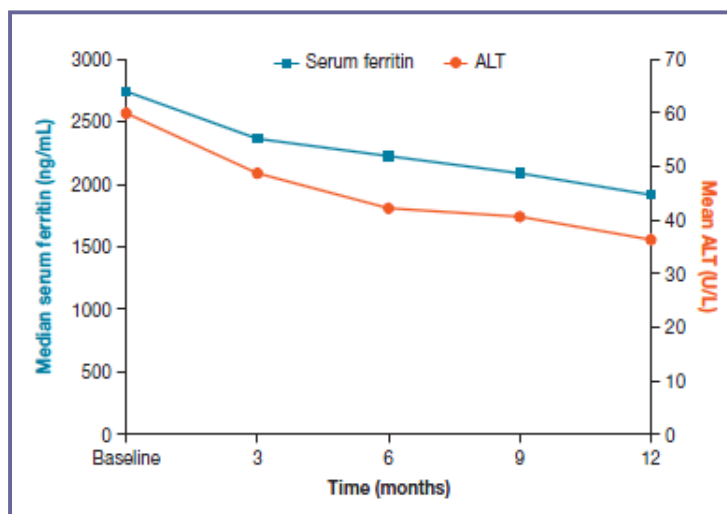
Correlation Between Decreased Serum Ferritin and Improved Liver Transaminases During Deferasirox (Exjade®) Treatment in Iron-Overloaded Patients with Myelodysplastic Syndromes (Abstract # 3803)

N Gattermann, M Schmid, A Guerci-Bresler, M Della Porta, K Taylor, D Habr, G Domokos, B Roubert and P Fenaux

Liver dysfunction is a common complication in patients with MDS.¹⁻³ In addition, iron overload which can occur in MDS patients as a consequence of transfusion therapy can cause hepatocellular injury that can progress to cirrhosis which is signified by increased levels of liver transaminases. Deferasirox has been shown to reduce iron overload in patients with MDS⁴ and there are reports of deferasirox inducing reductions in serum ferritin that correlate with improved liver transaminase levels in other transfusion-dependent anemias.⁵ This study assessed the relationship between serum ferritin and liver function – assessed by alanine aminotransferase (ALT) levels – during deferasirox therapy in MDS patients enrolled in the prospective, 1-year EPIC study, the largest cohort of MDS patients evaluated for iron chelation therapy to date.

This study included 341 patients with MDS for whom the mean actual deferasirox dose during treatment was 19.2 ± 5.4 mg/kg/day. Statistically significant decreases in median serum ferritin (-253 ng/mL [$P = 0.002$; $n=321$]) and mean ALT (-27.7 U/L [$P<0.0001$; $n=169$]) were observed at 12 months (Figure 1).

Figure 1. Median serum ferritin and mean ALT during deferasirox treatment



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There was a significant correlation between absolute change in serum ferritin and ALT from baseline to month 12 ($P < 0.0001$) indicating that a decrease in serum ferritin of 500 ng/mL was associated with a decrease in ALT of 21.6 U/L.

The significant decrease in serum ferritin observed over one year in this large MDS cohort is consistent with previous reports demonstrating the efficacy of deferasirox in this patient population.^{4,6-8} Serum ferritin reductions were correlated with a significant improvement in transaminases and further prospective studies are warranted to investigate the potential positive impact of deferasirox on liver function.

Expert commentary: Dr John Porter, University College London, UK

The reason for the lack of an observed correlation between cardiac T2 and cardiac events in MDS patients, in my opinion, is that there have been insufficiently large studies conducted in a prospective manner. It is clear from several studies that MDS patients are at risk of developing myocardial iron (low T2*). The effect of this on prognosis would require a large cohort of patients.*

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