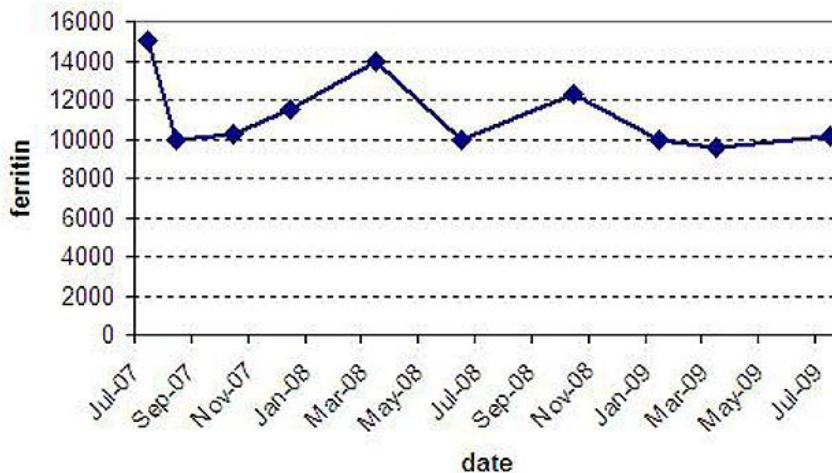


C A S E S T U D Y

A 26 year old male with beta- thalassaemia major who was diagnosed with rheumatoid arthritis at the age of 15 had a persistently high serum ferritin value of above 10,000 µg/L despite regular chelation therapy using Deferiprone 7 days a week.



The patient's renal function was normal and the review of liver enzymes supported this with an average ALT of 65 IU/L (normal range 0-31 IU/L). The patient was previously treated for Hepatitis C with Interferon and Ribavirin during 2006/07. The patient's viral load is now negative.

Several MRI scans had been obtained in the past using the T2* technique. The results were as follows:

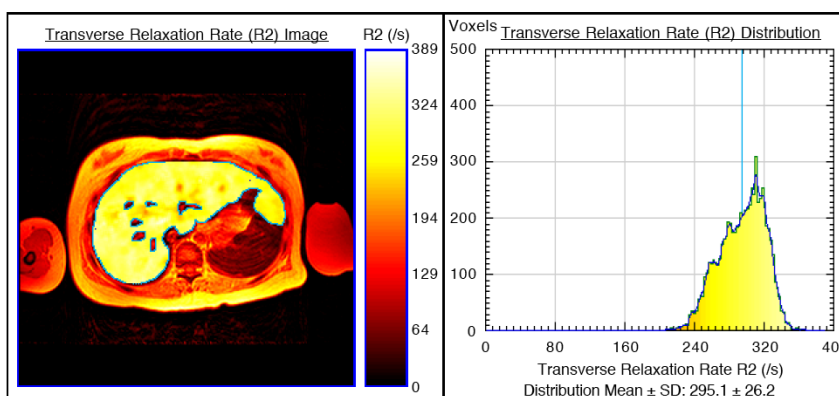
	CMR 2003	CMR 2007
Liver Iron	6.8 mg/g/dw	7.1 mg/g/dw
Cardiac T2*	34.5 ms	54.2 ms

On the basis of these results, mild changes were made in the chelation therapy with a view to optimise the iron load in the liver. A low dose of Desferrioxamine was added to the treatment twice a week. It was felt that the raised serum ferritin value was due to an acute phase response due to the rheumatoid arthritis. A normal result was obtained in the most recent glucose tolerance test.

In 2009, FerriScan was performed as part of the routine monitoring.

Average Liver Iron Concentration	> 43.0 mg/g dry tissue	(NR: 0.17-1.8)
	> 769 mmol/kg dry tissue	(NR: 3-33)

Normal range (NR) is taken from Bassett et. al., Hepatology 1986; 6: 24-29.



Authorised by: Service Centre Manager

Based on the FerriScan result, the chelation therapy was intensified by increasing the Desferrioxamine dosage to 40 mg/kg/day 5 days a week in conjunction with Deferiprone administered seven days a week. Another FerriScan will be performed in 6 months time. If the liver iron is not decreasing satisfactorily, a port-o-cath for intravenous Desferrioxamine may be considered.

This case study demonstrates the differences in severity of iron burden using different modalities to assess liver iron and the impact this can have on chelation therapy.