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P370 -Is oral vitamin B12 and folate supplementation (Renavit®) adequate in patients on high-flux haemodialysis and haemodiafiltration ?

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Introduction

Vitamin B12 deficiency and folate deficiency are well recognised in patients on haemodialysis (HD). Historically, B12 and folate supplementation for HD was usually via intramuscular B12 and oral folic acid (usually 5mg). Following licencing of the multivitamin preparation Renavit® (includes 1mg folic acid and 6µg B12 daily) which contains water soluble vitamins that may become deficient in HD patients, our Trust gained approval to prescribe one tablet a day for all dialysis patients in 2014. This led to a change in practice from routine hydroxocobalamin i.m injections and folic acid tablets in patients on both high-flux HD and HDF. We present long term data four years following conversion to Renavit.

Method

Each patient from one of our dialysis units had a folate and B12 level measured before the switch to Renavit®, approximately 12 months after the switch, and after 4.5 years.

Results

103 patients were included in the study. Data were available in 99 patients prior to switch, 65 patients 12 months after switch and 20 patients 4.5 years after the switch. Missing data was largely due to deaths and transplanted patients.

For folate, low levels (<5µg/L) were present in 5% of patients prior to Renavit® switch. Post Renavit®, low levels were present in 3% at 12m and 0% at 4.5 years. Mean folate was 25.2µg/L (range 3.1-25.2) pre-Renavit®, 24µg/L (range 2.3-24.4) 12m post-Renavit® and 16.2µg/L (range 6.0-20.0) 4.5 years post-Renavit®. Folate levels were compared using the Kruskal-Wallis test which found significant differences between groups ($p < 0.0001$). These differences were present between pre-Renavit® levels and both 12m and 4.5 year data ($p < 0.05$) but there was no difference in 12m and 4.5 year data.

For B12, low levels (<200ng/L) were present in 4% of patients prior to Renavit®, 2% 12m after Renavit® switch and 0% after 4.5 years. Median B12 was 534ng/L (range 138-1500) pre-Renavit®, 443ng/L (range 160-1703) 12m post-Renavit® and 521ng/L (range 318-1036) 4.5 years post-Renavit®. Comparing B12 levels between groups using the Kruskal-Wallis test, there was no significant difference in levels ($p = 0.16$)

Discussion

Of the 20 patients followed up at 4.5 years, no patients had low folate levels and no patients had low B12 levels.

Folate levels did fall on Renavit® which contains a lower dose of folic acid than was previously administered but this did not appear to be clinically significant.

Renavit® appears to be effective in maintaining B12 and folate levels in dialysis patients that require supplementation for losses that occur during haemodialysis.