

HANDGRIP STRENGTH – A SINGLE MARKER OF NUTRITIONAL ASSESSMENT?

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Malnutrition is a common problem in patients on dialysis and is associated with poor outcomes. Regular assessment of nutritional status and of nutrition risk is an integral component of good clinical practice and has been identified as such in the Renal NSF and as one of the KDOQI standards. Dietetic time is often limited and thorough nutritional assessment can be time consuming. We routinely assess the nutritional status of our patients on haemo - and peritoneal dialysis, using a range of assessment methods.

We have previously found that handgrip strength (HGS) showed a significant positive correlation with other recognised nutritional measures and was a marker of mid arm muscle circumference (MAMC) on cross-sectional data.

In this study we wished to examine whether the correlation was sustained in longitudinal data. We therefore compared the change in HGS with the change in MAMC in 104 haemodialysis patients in two measurements taken 1 year apart.

Results showed that the mean change in MAMC was 0.34cm with a range of -6.43 to 8cm. The mean change in HGS was 3.89 with a range of -55 to 40. The change in HGS correlated positively with the change in MAMC (r^2 0.07; p 0.01).

Hand grip strength measurements are quick, easy to do and are not influenced by inter-user variability. Although HGS may vary for reasons other than a change in muscle mass in some patients, these results further support our previous conclusion that, whilst a complete nutritional assessment using a variety of measures remains the ideal, HGS could provide a reliable single assessment of nutritional status in patients on dialysis.

