Impact of home parenteral nutrition and the older adult

In this large cohort study, increasing age was found to be protective against CRBSI” Bond et al (2019).

Abstract:

INTRODUCTION: The population in developed countries is getting older and with advancing age comes increasing co-morbidity and demand on health care services. The use of home parenteral nutrition (HPN) is also increasing in the UK and elsewhere. Age and co-morbidity need to be taken into consideration when HPN is contemplated because of the significant associated economic burden and clinical risk. However, there are minimal data on HPN outcomes specific to the elderly.

METHOD: We performed an observational study of a prospectively maintained database of patients dependent on HPN managed at a national U.K. referral centre. Data were collected on the 31st March 2018. Charlson index was used to assess co-morbidity. Data included demographics, HPN requirements, underlying disease aetiology, mechanism of intestinal failure, and whether the patient, carer or home care nurses administered the PN. The main outcome was the occurrence of at least one catheter-related blood stream infection (CRBSI) during HPN, with putative predictors of CRBSI assessed by uni- and multi-variable logistic regression.

RESULTS: Two hundred and seventy-seven patients were included in this study, 62% were female and the overall mean age of the entire cohort was 58 years (range 20-93). The mean duration of HPN was 1778 days (range 45-12,832). One hundred patients were aged 65 years or older. Patients aged 65 years or older had a higher Charlson index (1.8 vs 1.1, p = <0.0001), were more likely to require a home care nurse to administer PN (p = 0.01), and had the lowest risk of CRBSI (25% vs 39%; p = 0.01). Home care nurse administration was associated with the lowest risk of CRBSI, followed by carer and self-administration (P = 0.001). In multivariable analysis, duration of HPN and CVC care provider were the only independent predictors of CRBSI occurrence. There was no significant difference in unplanned intestinal failure-related hospital admissions between those under or above 65 years of age (p = 0.08). CONCLUSIONS: HPN can be safely used in patients over the age of 65, even with increased co-morbidity. In this large cohort study, increasing age was found to be protective against CRBSI. CVC care provider was an independent predictor of CRBSI, while
age and co-morbidity were not, suggesting that the use of home care nurses for PN administration is the principal reason for the low CRBSI rate in the elderly. Hence, older age should not be seen as a contra-indication for HPN, but increased healthcare resource may be required as those aged over 65 are more likely to require nursing assistance for CVC care.

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