Routine Assessment of Nutritional Status at Admission to Neurorehabilitation and Evaluation of Indication for Nutritional Strategies using the Innsbruck Nutrition Scale

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Abstract

Objectives: Malnutrition is frequently observed after major stroke, is usually associated with neurogenic dysphagia and/or impaired vigilance. The incidence of dysphagia in patients with acute stroke ranges from 35-40%. Malnutrition represents a risk for decreased immunity and nosocomial infections. Malnutrition is also associated with impaired functional outcome after stroke, a slower rate of recovery, poor rehabilitation potential and higher mortality. In hospitals without routine nutritional assessment and individual nutrition management plans the risk of patients developing malnutrition may be increased. Parameters of nutritional status usually are weight, BMI, mid upper arm circumference, serumalbumin, RMA, BADL, BI. We evaluated the incidence of dysphagia after stroke and the indications for clinical nutrition.

Methods: Setting: Specialized neurorehabilitation center, 43 beds for comprehensive inpatient rehabilitation, therapy mainly according to the principles of Bobath, Affolter, PNF, speech therapy, direct and indirect swallowing therapy including compensatory strategies, neuropsychological and psychological support.

Results: Outcome in rehabilitation was measured calculating the difference of Barthel Index (BI), BI (Frühreha-Barthel Index) at admission and discharge. Delta BI (mean Delta BI 50, median DeltaBI 4.) was corrected for swallowing specific items.

Introduction

According to former investigations (1,2,3) malnutrition is frequently observed after major stroke, is usually associated with neurogenic dysphagia and/or impaired vigilance. The incidence of dysphagia in patients with acute stroke ranges from 35-40%. Malnutrition represents a risk for decreased immunity and nosocomial infections. Malnutrition is also associated with impaired functional outcome after stroke, a slower rate of recovery, poor rehabilitation potential and higher mortality. In hospitals without routine nutritional assessment and individual nutrition management plans the risk of patients developing malnutrition may be increased. Parameters of nutritional status usually are weight, BMI, mid upper arm circumference, serumalbumin, RMA, BADL, BI. We evaluated the incidence of dysphagia after stroke and the indications for clinical nutrition.

Conclusion

1. Assessment of nutritional status at start of rehabilitation is very feasable and shows a typical pattern for the incidence of dysphagia after stroke. Establishing the indication for clinical nutrition using this score system is very easy and reflects best clinical practice. In a rehabilitation scenario offering specific swallowing therapy we also could show a highly significant better outcome for patients with severe neurogenic dysphagia and actual malnutrition at admission.

2. Establishing the indication for clinical nutrition using this score system is very easy and reflects best clinical practice.

3. In a rehabilitation scenario offering specific swallowing therapy we also could show a highly significant better outcome for patients with severe neurogenic dysphagia and actual malnutrition at admission.

References:

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