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JOINT EVENT

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Adductor muscle thickness of the thumb: A new and reliable parameter for nutritional assessment of pediatric inpatients

The adductor pollicis muscle thickness (APMT) is a promising method for evaluation of muscle loss and, consequently, malnutrition in adult and elderly patients. Within this context, we sought to evaluate the association of APMT with anthropometric variables, body mass index (BMI), pediatric subjective global assessment (SGA) of nutrition, nutritional screening, and clinical outcomes in hospitalized pediatric patients. This is a cross-sectional study of hospitalized patients between the ages of four and 8.9 years, with convenience sampling, performed at a pediatric hospital in Rio Grande do Sul. Patients admitted to the intensive care unit, those who could not orally take food and those with cerebral palsy or Down syndrome were excluded. General and socioeconomic information was collected and SGA Ped and STRONGkids were administered at hospital admission. The clinical data were collected in the electronic medical record. The sample consisted of 447 patients. Most of them, (55.9%) were male; the mean age was 6.2 ± 1.4 years. Low APMT was significantly associated with underweight, short stature, low body fat percentage, and poor muscle reserve ($p < 0.001$). There were also significant associations of moderate and severe malnutrition (assessed by the SGA Ped) and high nutritional risk (assessed by the STRONGkids instrument) with reduced APMT ($p < 0.001$). A longer hospital stay was observed in patients with reduced APMT ($p = 0.001$). A receiver operating characteristic (ROC) curve, plotted considering the SGA Ped as the gold standard, suggested APMT cutoff points of 10.2 mm for boys and 9.5 mm for girls. Stratification by age yielded APMT cutoff points of 9.8 mm for boys younger than six years and 10.2 mm for those older than six years, and 9.2 mm and 9.8 mm for girls younger and older than six years, respectively. The APMT is an efficient parameter for the detection of malnutrition in hospitalized pediatric patients.

Biography

Juliana Paludo Vallandro has completed her Doctorate degree from the Federal University of Rio Grande do Sul, which is one of the best three universities in Brazil, according to the Ministry of Education. She is currently pursuing her Post-doctorate degree in Child and Adolescent Health from the same university. She is a Level I-Assistant Professor in the Undergraduate Nutrition course at Ritter dos Reis University, which belongs to the Laureate teaching network, and also teaches several Lato Sensu graduate courses. She has published 14 scientific papers in national and international journals.

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