عنوان مقاله:

EVALUATING DIAGNOSTIC VALUE AND FEASIBILITY OF MID UPPER ARM CIRCUMFERENCE MEASUREMENT IN DIAGNOSING ACUTE MALNUTRITION IN CHILDREN UNDER 5 YEARS IN BANDAR ABBAS

محل انتشار:

سومین کنگره بین المللی و پانزدهمین کنگره تغذیه ایران (سال: 1397)

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خلاصه مقاله:

Background and Aim: Timely diagnosis and treatment of severe acute malnutrition (SAM) in children less than 5 years of age could prevent 500,000 deaths annually. Current WHO guidelines for community screening for malnutrition recommend a Mid Upper Arm Circumference (MUAC) of 115 mm to identify SAM. However, MUAC validity and reproducibility is still controversial.Methods: In a case-control study, all children with a diagnosis of SAM by a survey done in Bandar Abbas were recruited. Age, weight, length, and MUAC were measured. For each SAM case, 10 nonSAM children were randomly selected whom matched by sex and age. Sensitivity, specificity, predictive values, likelihood ratio, and ROC curves for MUAC were determined and compared with those of weight for height Z score (WHZ) as the gold standard. Also, reproducibility, accuracy, simplicity, and acceptability of MUAC were calculated.Results: The finding showed that MUAC sensitivity and specificity were 14.9% and 99.8%, respectively. Positive and negative predictive values were 87.5% and 92%, respectively. Positive likelihood ratio was 74.5 and negative likelihood ratio was 0.85 respectively. According to ROC curves, the MUAC cut-off of 135 mm has the best sensitivity and specificity (70%-80%). MUAC measurement was acceptable and its reproducibility and accuracy was high (r=0/94, p<0.001 and r=0/98, p<0.001).Conclusion: MUAC has low sensitivity for SAM diagnosis. The current WHO cut-off for the screening of SAM should be changed upwards from the current 115 mm. However, MUAC is a reliable, reproducible indicator and can serve for rapid diagnosis of nutritional status in 6-59 month-old children.

کلمات کلیدی:

child; severe acute malnutrition; muac; screening

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