NUTRITIONAL STATUS OF ADOLESCENTS FROM THELLIPALAI MEDICAL OFFICER HEALTH AREA OF JAFFNA DISTRICT CLASSIFIED BASED ON SERUM ALBUMIN LEVELS

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Abstract

Serum albumin serves as a vital biomarker for nutritional status. Protein requirement is higher during adolescence than in adults, as it is the critical period of growth and development. The majority of adolescents do not give importance to nutrition. The cutoff range for serum albumin in adolescents is 3.2-4.5 g/dl. This study aimed to assess the nutritional status of adolescents (from 17 to 19 years old) in the Thellipalai Medical Officer of Health (MOH) area of Jaffna District based on serum albumin levels. Ethics Review Committee, Faculty of Medicine, University of Jaffna granted ethical approval for the study. Sociodemographic information was collected with an interviewer-administrated questionnaire from 63 adolescents during house visits. Blood samples were collected by venipuncture for the analysis of serum albumin concentration using the calorimetric Bromocresol Green method. Among the adolescents, 52.4% were females with a mean age of 18.25 (±0.8) years, and 47.6 % were males with a mean age of 18.14 (±0.2) years. The mean serum albumin levels in adolescent males and females were 4.16 (±0.2) g/dl and 4.06 (±0.8) g/dl, respectively. Even though the average serum albumin levels in both male and female adolescents were above the threshold level for protein deficiency (3.2 g/dl), 10% (n=4) males and 13.6% (n=6) females had protein deficiency. The findings highlighted the prevalence of protein deficiency in among adolescents (from 17 to 19 years old) in the Thellipali MOH area of Jaffna District and the underlying factors contributing to the deficiency should be studied in detail.

Keywords: adolescents, protein, nutritional status, serum albumin, Thellipalai