

**DETERMINATION OF PROTEIN AND CRUDE FIBRE IN COOKED FOODS CONSUMED BY TODDLERS AGED 1-2 YEARS IN ALAWWA, SRI LANKA**

**M.T.S. Pathirathne<sup>1</sup>, W.A.G.E. Wijelath<sup>1</sup>, A.B.G. Silva<sup>2</sup> and W.A.D. Nayananjalie<sup>1</sup>**

<sup>1</sup>*Department of Animal and Food Sciences, Faculty of Agriculture, Rajarata University of Sri Lanka, Anuradhapura, Sri Lanka.*

<sup>2</sup>*Department of Nutrition, Medical Research Institute, Colombo 08, Sri Lanka.*

In early life, protein deficiency, heavy protein intake, and constipation cause adverse conditions in human beings. However, adequate studies have not been conducted on fibre and protein contents in foods consumed by toddlers in Sri Lanka. Therefore, the present study was aimed to assess the protein and crude fibre adequacy of diets in 1-2-year aged toddlers in *Alawwa* Medical Officer of Health (MOH) area, *Kurunegala*. Data on food consumption was obtained by 24-hour dietary recall method from selected caregivers (60) and commonly consumed foods (30) were cooked using household preparation protocols practiced in the area. They were homogenized and analysed for protein and fibre. Majority of toddlers among the selected population consumed rice-based meals (73%) as a main meal (cooked rice with vegetable accompaniments) while 27% preferred mixed diets (mixture of vegetables, pulses, leafy vegetables and fish along with rice). A serving of commercial cereal products provided the highest estimated daily intake (EDI) of protein ( $10.70 \pm 0.40$  g). Average EDI of protein of all categories of foods per portion (rice, vegetables, pulses, green leaves, fish, eggs, rice mixtures and cereal products) was  $31.55 \pm 0.88$  g, contributing to the recommended dietary allowance (RDA) of 242.64% and 150.17% for 1-2-year toddlers as defined by the Department of Agriculture, United States (USDA) and Sri Lankan RDA, respectively. The highest EDI of crude fibre was shown by mixed diet category ( $2.74 \pm 0.01$  g). The total average EDI of crude fibre of all food categories per portion was  $8.04 \pm 0.17$  g. However, there were no RDA values for crude fibre specified in the considered guidelines. In conclusion, the cooked foods prepared according to local recipes fulfilled the dietary requirements of protein for toddlers aged 1-2 years in *Alawwa* MOH area in accordance with USDA and Sri Lankan nutrition guidelines.

**Keywords:** Crude fibre, Estimated daily intake, Protein, Recommended dietary allowance