

Micronutrient malnutrition profile of infants in South India

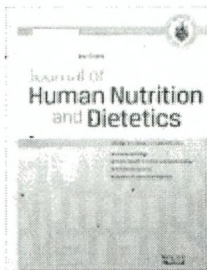
1. K. Amrutha Veena^{1,*},
2. S. Kowsalya¹ and
3. S. Kothandapani²

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Author Information

1

Department of Food Science and Nutrition, Avinashilingam University for Home Science and Higher Education for Women, Coimbatore, India

2

Kothandapani Child Clinic, Paramakudi, Ramanathapuram, India

* Correspondence

K. Amrutha Veena, Department of Food Science and Nutrition, Avinashilingam University for Home Science and Higher Education for Women, Coimbatore – 641 043, India.

Tel.: +919442547874

E-mail: saiamruthaveena@gmail.com (<mailto:saiamruthaveena@gmail.com>)

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Abstract

Background

The present study aimed to evaluate the nutritional status of infants in Ramanathapuram district of Tamilnadu.

Methods

The present study comprised a community-based cross-sectional study conducted in seven taluks of the Ramanathapuram district. A total of 2800 infants (<1 year of age) comprising of 1400 male and 1400 female infants were selected from all the seven taluks of the Ramanathapuram district at random. Anthropometric parameters such as weight, crown heel length, head circumference, arm circumference and chest circumference were measured using standardised procedures. Clinical examinations for the manifestation of micronutrient deficiency signs were performed. Biochemical estimations of serum haemoglobin, vitamin A and urinary iodine were estimated for 5% of the infants.

Results

Low birth weight was observed among 33.5% of the infants, with 1.6% weighing <1500 g. Being underweight (35.4%), stunting (29.6%) and wasting (18.9%) were also observed among the infants. Different forms of clinical signs and symptoms of micronutrient deficiencies were observed among 21.3% and 27.4% of the male and female infants. Subclinical deficiency of haemoglobin, vitamin A and iodine were observed among 67.1%, 52.1% and 32.9% of the infants, respectively.

Conclusions

Micronutrient deficiencies pertaining to the 'Big 3', namely vitamin A deficiency, iodine deficiency disorders and iron deficiency anaemia are still common among the infants of Ramanathapuram district, leading to the need for effective intervention measures.

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