

Frequency of Malnutrition (Undernutrition, Overweight/ Obesity) and Prevalence of Iron Deficiency in Western Algeria Infants

Introduction and objective. Stunting in childhood is a risk factor that may result in overweight and obesity later in adolescence and adulthood, indicating the need to screen children below 1 year of age to identify stunting early in life. Iron deficiency (ID) is one of the most widespread nutritional disorders in both developing and industrialized countries, making it a global public health concern. The aim of the study was to evaluate the frequency of malnutrition (undernutrition, overweight and obesity) and the prevalence of iron deficiency among a population of infants from western Algeria.

Population and methods. From January to June 2016, 130 healthy children (72 males), mean age 21.2 ± 3.9 mo, were prospectively enrolled during their visit to three immunization centers in Oran. After written consent, anthropometric measurements (weight/age, height/age, weight/height, BMI, expressed in Z-scores according to WHO standards) were taken, dietary intakes were assessed by 24H recall followed by three days records. Hemoglobin, serum ferritin and soluble transferrin receptor (sTfR) were determined to assess iron status. Continuous values were expressed as mean $\pm$ standard deviation, and discrete values as percentages.

Results. Weight and height were assessed in 112 children. Mean weight was 0.482 ± 1.07 z-scores, mean height 0.09 ± 1.39 z-scores, mean weight/height 0.72 ± 1.55 z-scores, mean BMI 0.79 ± 1.69 z-scores. Wasting (weight/height < -2 z-scores) was found in 6 (5.5%), stunting (height/age < -2 z-scores) in 7 subjects (6.2%), overweight was present in 16 (14.3%), and obesity in 7 (6.3%). Anemia was present in 61/130 infants (46.9%), and iron deficiency (ferritin < 11 mg/dl and/or positive sTfR) was found in 71/119 (59.6%). Dietary assessment showed micronutrients consumption deficiencies of iron (84%), zinc (65%), iodine (48%), and Vitamin D (95%).

Conclusion. Our study shows that 10% of infants present undernutrition (wasting and stunting), and 18.7% overnutrition. Moreover, anemia and iron deficiency are particularly prevalent. This is a clear example of the burden of malnutrition and the "hidden hunger" in our context.

Institution

1Clinique A. Cabral. CHU Oran. 2Laboratoire de Nutrition Clinique et Métabolique. Faculté des Sciences de la Nature et de la Vie. Université d'Oran1 Ahmed Ben Bella. Oran. Algeria. 3Association Algérienne pour la Promotion de la Nutrition de l'Enfant et de la Mère AAPEM, Alger.

Country

Algeria

Primary author: Ms BOUZIANE NEDJADI, Karim (Clinique A. Cabral. CHU Oran.)

Co-authors: Ms HAMOUS, Amina (2Laboratoire de Nutrition Clinique et Métabolique. Faculté des Sciences de la Nature et de la Vie. Université d'Oran1 Ahmed Ben Bella. Oran. Algeria); Ms HADJ KADI, Amira (2Laboratoire de Nutrition Clinique et Métabolique. Faculté des Sciences de la Nature et de la Vie. Université d'Oran1 Ahmed Ben Bella. Oran. Algeria.); Dr BOUREGHDA, Imad (3Association Algérienne pour la Promotion de la Nutrition de l'Enfant et de la Mère AAPEM, Alger); Prof. BOUCHENAK, Malika (Laboratoire de Nutrition Clinique et Métabolique. Faculté des Sciences de la Nature et de la Vie. Université d'Oran1 Ahmed Ben Bella. Oran. Algeria.); Dr DIDA, Nawal (2Laboratoire de Nutrition Clinique et Métabolique. Faculté des Sciences de la Nature et de la Vie. Université d'Oran1 Ahmed Ben Bella. Oran. Algeria.); Ms BENADOUDA, Soraya (2Laboratoire de Nutrition Clinique et Métabolique. Faculté des Sciences de la Nature et de la Vie. Université d'Oran1 Ahmed Ben Bella. Oran. Algeria)

Presenters: Ms BOUZIANE NEDJADI, Karim (Clinique A. Cabral. CHU Oran.); Prof. BOUCHENAK, Malika

(Laboratoire de Nutrition Clinique et Métabolique. Faculté des Sciences de la Nature et de la Vie. Université d'Oran1 Ahmed Ben Bella. Oran. Algeria.)

Session Classification: Poster Session 4

Track Classification: Epidemiology