

# Relationship between body mass index and fifteen classical markers of the metabolic syndrome in young adults of western Algeria

M I Belhayara

University of Oran 1, Algeria

## Abstract

Obesity plays a critical role in metabolic complications seen in metabolic syndrome populations. Yet, the consequences of increased body mass index on the metabolic disorders associated with metabolic syndrome have not been thoroughly examined. Fifteen classical markers of the latter syndrome, as well as body mass index, were measured in both 20 non-obese and 20 obese control subjects and 20 overweight and 80 obese young adults of western Algeria affected by the metabolic syndrome. The possible interrelationships between body mass index and selected markers was then investigated. Even in control subjects as distinct from patients affected by the metabolic syndrome, obesity coincides with obvious increases of glycemia, insulinemia, HOMA index, total cholesterol, triglycerides, leptin and hs-CRP and obvious decreases of adiponectin and GLP-1. Qualitatively, the obese control subjects display virtually all the perturbations of metabolic variables considered as indicative of the metabolic syndrome. Such a finding reinforces the view that obesity, as most currently attributable to an imbalance between food intake and energy expenditure, may well represent, in most patients affected by the metabolic syndrome, a key pathological determinant. Hence, the present finding also argues in support of a dietary approach in the perspective of preventing, or even curing, the metabolic syndrome.

their associations with dietary behaviors as nutrition transition is unfolding in the region.

## Speaker Publications:

1. Relationship between the insulin resistance and circulating predictive biochemical markers in metabolic syndrome among young adults in western Algeria
2. Relationship between body mass index and fifteen classical markers of the metabolic syndrome in young adults of western Algeria

16<sup>th</sup> [Euro Obesity and Endocrinology Congress](#); Webinar - July 20-21, 2020

## Abstract Citation:

M I Belhayara, Relationship between body mass index and fifteen classical markers of the metabolic syndrome in young adults of western Algeria, Euro Obesity 2020, 16<sup>th</sup> Euro Obesity and Endocrinology Congress; Webinar - July 20-21, 2020

(<https://obesity.nutritionalconference.com/abstract/2020/relationship-between-body-mass-index-and-fifteen-classical-markers-of-the-metabolic-syndrome-in-young-adults-of-western-algeria>)



## Biography:

Med Ilyes Belhayara is a PhD student in Health and Development Sciences at Department of Biology, Faculty of Natural and Life Sciences, University of Oran, Algeria. His research interests lie in the area of promising biomarkers that are associated with metabolic diseases such as obesity, metabolic syndrome, type 2 diabetes and cardiovascular diseases. Med Ilyes is also interested by risk factors associated with nutrition-related diseases in North Africa countries and