Author's response to reviews

Title: Is Impaired Energy Regulation the first order of the Metabolic Syndrome in ethnically diverse populations in the USA and Taiwan?

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Author's response to reviews: see over
Dec, 21st, 2009

Dear Dr Terry Davies, Dereck Hunt and John Yudkin,

Re: “Is Impaired Energy Regulation the first order of the Metabolic Syndrome in ethnically diverse populations in the USA and Taiwan?”

Mark L Wahlqvist, Hsing-Yi Chang, Chu-Chih Chen, Chih-Cheng Hsu, Wan-Chi Chang, Wuan-Szu Wang, and Chao A. Hsiung

We have been invited by your parent organization (BMC Medicine) to resubmit this paper to BMC Endocrine Disorders. We would be grateful for your consideration.

Yours sincerely,

Prof Mark L. Wahlqvist MD (Adelaide and Uppsala), FRACP, FAFPHM

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Dec, 2, 2009

Drs M Norton, J Patel, and R Cassady-Cain
Co-Editors
BMC Medicine
BioMed Central Ltd, Middlesex House
34-42 Cleveland Street
London W1R 4LB
UK

Dear Co-Editors:

Re: “Is Impaired Energy Regulation the first order of the Metabolic Syndrome in ethnically diverse populations in the USA and Taiwan?”

Mark L Wahlqvist, Hsing-Yi Chang, Chu-Chih Chen, Chih-Cheng Hsu, Wan-Chi Chang, Wuan-Szu Wang, and Chao A. Hsiung
It is now some 20 years since Reaven endeavored to provide an understanding, by way of insulin resistance, for the cluster of metabolic abnormalities now regarded as the “metabolic syndrome”. The question is still begged, however, whether there is an underlying common disorder and what it might be.

Through factor analysis of diverse ethnic groups in Taiwan and the USA, we have identified a common “core” of 3 components (abdominal fatness, fasting glucose and triglycerides) between the groups; abdominal fatness can be regarded as an index of FFA (free fatty acid) flux. This “core” can be considered to represent energy regulation or its disorder – “impaired energy regulation (IER)” . We suggest that this might constitute the “first order of the metabolic syndrome” and that other components of the present metabolic syndrome (systolic /diastolic BPs and HDL cholesterol) or a wider constellation of variables (e.g. uric acid, inflammatory markers) might make it more or less relevant to a wider range of health outcomes (e.g. cardiovascular disease, diabetes, and cancer)

This is a new way of looking at the metabolic syndrome which we believe will go some distance toward clarification of what has become a quagmire of research, public health and clinical practice.

We look forward to the opportunity to publish in the BMC Medicine.

Yours sincerely,

Prof Mark L. Wahlqvist MD (Adelaide and Uppsala), FRACP, FAFPHM