

Peer Review Report

Review Report on Obesity Metabolic Phenotype, Changes in Time and Risk of DM in An Observational Prospective Study on General Population

Original Article, Int J Public Health

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EVALUATION

Q 1 Please summarize the main findings of the study.

This is a prospective study that recruited 2615 subjects at baseline for a cross sectional survey, at that timepoint blood was collected and questionnaires administered. After 9 years, 1393 participants from the original cohort were successfully re-examined: their blood was collected and they filled questionnaires. In the present study, authors were interested in obesity metabolic phenotype which they measured with combined assessment of metabolic biomarkers and BMI/WC measurements. Thus, study exposure is obesity metabolic phenotype, and the study main outcomes were changes in obesity metabolic phenotype and type two diabetes (DM2).

Results show that participants with the metabolically unhealthy obesity phenotype (MUO) were at higher risk of developing DM2 followed by metabolically healthy obesity and metabolically unhealthy normal weight.

Q 2 Please highlight the limitations and strengths.

See commentary

Q 3 Please provide your detailed review report to the authors. The editors prefer to receive your review structured in major and minor comments. Please consider in your review the methods (statistical methods valid and correctly applied (e.g. sample size, choice of test), is the study replicable based on the method description?), results, data interpretation and references. If there are any objective errors, or if the conclusions are not supported, you should detail your concerns.

See commentary

PLEASE COMMENT

Q 4 Is the title appropriate, concise, attractive?

I suggest a change, so that it can be clear that obesity metabolic phenotype at baseline is the exposure and obesity metabolic phenotype at follow up together with DM2 are outcomes. Something on the line: "Obesity metabolic phenotype, changes in time and risk of DM in an observational prospective study on general population"

Q 5 Are the keywords appropriate?

yes

Q 6 Is the English language of sufficient quality?

No, see commentary

Q 7 Is the quality of the figures and tables satisfactory?

No.

Q 8 Does the reference list cover the relevant literature adequately and in an unbiased manner?)

No, see commentary

QUALITY ASSESSMENT

Q 9 Originality



Q 10 Rigor



Q 11 Significance to the field



Q 12 Interest to a general audience



Q 13 Quality of the writing



Q 14 Overall scientific quality of the study



REVISION LEVEL

Q 15 Please make a recommendation based on your comments:

Major revisions.