

META-REGRESSION OF RISK FACTORS FOR MICROALBUMINURIA IN TYPE 2 DIABETES

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Abstract. We aimed to determine the risk factors associated with microalbuminuria in type 2 diabetes patients through a systematic review and meta-regression analysis. The analyzed studies were obtained from PubMed, Scopus, British Medical Journal and ProQuest databases. All studies published from 2000 to 2009 were included. The search yielded 1,243 citations, of which 22 studies were analyzed. Pooled odds ratio estimates were obtained using a random effect model. The association of each risk factor with microalbuminuria was examined after adjusting for age and sex using meta-regression analysis. The adjusted odds ratio was 1.26 (95% CI 1.08-1.46) for systolic blood pressure; 1.16 (95% CI 1.03-1.31) for diastolic blood pressure; 1.43 (95% CI 1.14-1.80) for fasting plasma glucose level; 1.37 (95% CI 0.95-1.98) for smoking and 1.49 (95% CI 0.91-2.46) for waist circumference. The risk factors associated with microalbuminuria were found to be poor glycemic control, uncontrolled hypertension, smoking and central obesity. There is an urgent need to launch a health promotion program for changes in individual health behaviors to mitigate these risk factors for microalbuminuria in patients with type 2 diabetes.

Keywords: type 2 diabetes, microalbuminuria, meta-regression

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