Author's response to reviews

Title: Plasma calprotectin and its association with cardiovascular disease manifestations, obesity and the metabolic syndrome in type 2 diabetes mellitus patients

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To the Editorial board of Cardiovascular Disorder

We hereby submit our manuscript “Plasma calprotectin and its association with cardiovascular disease manifestations, obesity and the metabolic syndrome in type 2 diabetes mellitus patients” for consideration as an article in your journal.

Calprotectin is involved in the pathogenesis of various inflammatory diseases, but has recently attracted increasing interest as a promising biomarker and treatment target in cardiovascular disease (CVD). Several studies have shown that levels of circulating calprotectin are increased by traditional CVD risk factors such as smoking, obesity, hyperglycemia, and dyslipidemia. Furthermore, calprotectin have been shown to be directly involved in the inflammatory processes involved in the pathogenesis of atherosclerosis.

The incidence of CVD is distinctly elevated in patients with type 2 diabetes mellitus (T2DM) and as calprotectin is involved in diabetic vascular complications, we investigated if plasma levels of calprotectin could assess the CVD risk in diabetic patients. To do this, we validated and evaluated the performance of a new automated assay for measurement of plasma calprotectin and established a reference interval for plasma calprotectin. We found that T2DM patients had significantly higher concentrations of plasma calprotectin, which were associated with obesity, metabolic syndrome status, autonomic neuropathy, peripheral arterial disease and myocardial ischemia: However, plasma calprotectin was not an independent predictor of CVD, autonomic neuropathy or PAD.