Background: The metabolic syndrome (METS) is highly prevalent in postmenopausal women. Vascular, inflammatory and endothelial changes have not been completely elucidated in this population.

Objective: To measure serum markers of angiogenesis, inflammation and endothelial function in postmenopausal women screened for the METS.

Methods: Serum of postmenopausal women with (n=57) and without the METS (n=43) was analyzed and compared for angiopoietin-2, IL-8, and sFASL (angiogenesis); IL-6 and TNF-α (inflammation) and sCD40L, PAI-1, and u-PA (endothelial function). Modified Adult Treatment Panel III criteria were used to define the METS.

Results: Age and time since menopause onset were similar in both studied groups. In general, women with the METS displayed a trend for higher levels of the analyzed markers. Nevertheless, only IL-6 levels (inflammation) were found to be significantly higher and u-PA levels (endothelial function) significantly lower among METS women as compared to controls.

Conclusion: Women with postmenopausal METS displayed increased inflammation and impaired endothelial function.