

# European Food Chemistry & Eating Disorder Congress

July 26-27, 2018 | Amsterdam, Netherlands

## Relationship between inflammatory markers and visceral obesity in obese and overweight Korean population

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Obesity is now considered as a state of chronic low-grade inflammation. This study assessed the relationships between several inflammatory markers and visceral obesity. The study included data from 600 eligible adults who visited the Severance Health Promotion Center or Department of Family Medicine for health checkups. Serum inflammatory marker levels were quantified and intra-abdominal visceral adipose tissue (VAT) and subcutaneous adipose tissue (SAT) areas were measured with computed tomography. We performed Pearson partial correlations, analysis of covariance, Steiger's Z tests, and multiple linear regression analysis to investigate associations between the abdominal adiposity index and inflammatory markers. Pearson correlation analysis showed that white blood cell (WBC) count ( $r=0.157$ ,  $p<0.001$ ) and high sensitivity C-reactive protein (hsCRP;  $r=0.159$ ,  $p<0.001$ ) were more highly associated with VAT area than neutrophil-lymphocyte ratio (NLR) and platelet-lymphocyte ratio (PLR). Only VAT area was significantly associated with WBC ( $\beta=0.008$ ,  $p<0.001$ ), hsCRP ( $\beta=0.007$ ,  $p<0.001$ ) and NLR ( $\beta=0.002$ ,  $p<0.025$ ) after adjusting for confounding variables. This study shows that VAT area is significantly and independently associated with WBC, hsCRP, and NLR with stronger relationships observed for WBC and hsCRP.

### Biography

Ju Yeon Yu has completed her MD from Soonchunhyang University and has been obtaining her Medical Residency Program (PGY-3) at Gangnam Severance Hospital, Yonsei University College of Medicine, Seoul.

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