

한국 성인 남녀에서 내장지방이 미세알부민뇨의 유병율에 미치는 영향

서울대학교 의과대학 내과학교실¹, 서울대병원 강남센터 내과², 서울대병원 강남센터 가정의학과³

김현숙¹, 박효은², 김민경², 최수연², 권혁태³, 허남주²

Association of Visceral Adiposity with Microalbuminuria Among Korean Adults

Hyunsuk Kim¹, Hyo Eun Park², Minkyung Kim², Su-Yeon Choi², Hyuktai Kwon³, Nam Ju Heo²

Department of Internal Medicine¹, Seoul National University Hospital
Department of Internal Medicine², Healthcare System Gangnam Center, Seoul National University Hospital
Department of Family Medicine³, Seoul National University College of Medicine

Purpose: Microalbuminuria is well known as a marker of cardiovascular and kidney disease. Few studies have examined the effect of visceral adiposity on microalbuminuria. The aim of this study is to investigate the association between visceral adipose tissue (VAT) and the prevalence of microalbuminuria.

Methods: We conducted a cross-sectional study of 1,154 subjects who underwent routine health checkups, including CT scan analyses of abdominal adipose tissue at the Healthcare System Gangnam Center of Seoul National University Hospital from September 2006 through December 2010. VAT area was defined as intra-peritoneal fat bound by parietal peritoneum or transversalis fascia. Microalbuminuria was defined as albumin to creatinine ratio 30–300 mcg/g of spot urine. Since the clear standard for normal abdominal fat has not been established, we used the lowest tertile as a reference group after dividing abdominal fat into three groups.

Results: Overall, 9.6% (n=111) had microalbuminuria. After multivariate adjustment, highest tertile group of VAT was associated with higher prevalence of microalbuminuria (odd ratio [OR] 1.882; 95% confidence interval [CI] 1.064–3.330, p=0.030). Individuals with higher VAT showed higher insulin resistance (HOMA-IR) (p for trend <0.001). In subgroup analysis, among men, highest tertiles of VAT and TAT were associated with higher prevalence of microalbuminuria (VAT; OR, 2.705; 95% CI, 1.430–5.118, TAT; OR, 1.958; 95% CI, 1.067–3.590). Among women, there was no significant association between the area of abdominal adipose tissue and microalbuminuria.

Conclusion: Our results suggest that VAT is associated with microalbuminuria. Microalbuminuria may be a manifestation of visceral adiposity and insulin resistance. In case of women, further studies with larger sample size will be required.

Key Words: 내장지방, 미세알부민뇨

Visceral fat, Microalbuminuria