

Testosterone increases CCL-2 expression in visceral adipose tissue from obese women of reproductive age

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© 2017 Elsevier B.V. Context Hyperandrogenic states and obesity in women are associated with insulin-resistance. Androgens reduce glucose uptake in adipose cells and increase TNF α production in peripheral monocytes. Inflammatory cytokines have a known detrimental effect on insulin resistance. The aim of the present study was to explore the role of testosterone in local cytokine production in visceral adipose tissue from women of reproductive age. Design Twenty-four women 18-40 years old, undergoing elective abdominal surgery for benign and non-inflammatory conditions, were recruited for the study. Women with clinical hyperandrogenism, diabetes, hepatic or renal dysfunction, hypothyroidism, BMI > 40 or drugs known to interfere with hormonal levels or fat metabolism were excluded. Women were classified into two groups according to BMI, non-obese (N; BMI < 30) and obese (O; BMI 30-40). A basal blood sample was drawn at the time of surgery for the measurement of glucose, insulin, total te