



OCTOBER 10-13, 2019 | CHICAGO, IL

2019 SCIENTIFIC POSTER SESSION

P003**Omental Adipose Removal Decreases High Blood Pressure in Hypertensive Patients Independent of Body Mass Index***Friday, October 11, 2019, 10:15 – 11:15 AM, 2:25 - 3:25 PM**Saturday, October 12, 2019, 10:00 – 11:00 AM, 2:15 - 3:15 PM*Jiang L¹, Sun W¹, Zhang M², Wang Y¹, Tian Y², Li P², Lu Y², Xu T¹, Qiu M³, Yang Y³, Jia X³, Zhou B², Kong X¹

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Purpose

Several studies have demonstrated that increased omental adipose is a risk factor for obesity and metabolic syndrome. It remains unclear whether it is responsible for hypertension as an independent risk. This study was designed to assess the impact of omental adipose removal by surgery on blood pressure in cancer patients with or without hypertension.

Methods

In this study, 133 patients with gastric or gynecological cancer were divided into 3 groups: non-hypertensive and omentum removed (NH&OR), hypertensive and omentum removed (H&OR), and hypertensive and omentum present (H&OP). The patients were followed up in sitting blood pressure (SBP), changes in related body mass index and metabolic indices. The time points of the 2 follow-up visits were 1 month \pm 7 days after the operation before the start of chemotherapy and the endpoint of 8 \pm 1 month. Omental adipose tissue from both non-hypertensive and hypertensive patients in surgery were collected.

Results

We included 133 patients (84.2% female, 20.3% Malignant gastric cancer and 79.7% Malignant gynecological cancer, 78.2% omentum removal, 48.9% hypertensive), and all completed follow-up. H&OR group showed significant reductions in SSBP and SDBP compare with baseline at 1-m (-16.94/-10.50 mmHg, both $P < 0.001$) and 8-m end point (-16.00/-5.50 mmHg, $P < 0.001$ and $P = 0.004$). Little reductions were observed with BMI of patients in 3 groups till the endpoint of study (H&OR group: 24.60 kg/m² to 23.57 kg/m², NH&OR group: 23.45 kg/m² to 23.25 kg/m², H&OP group: 25.74 kg/m² to 25.24 kg/m², all $P > 0.05$). No correlation was found between baseline BMI and 8-m change of SSBP and SDBP in omentum removed groups. In both groups, triglyceride levels were significantly increased at 4 \pm 1 week after surgery (NH&OR 0.32 mmol/L, $P = 0.006$; H&OR 0.40 mmol/L, $P = 0.010$).

Conclusions

Resection of omental adipose tissue represents an effective strategy for reducing SSBP and SDBP at 8 months in hypertensive patient, even in the non-obese hypertensive population.



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