

CARDIOMETABOLIC HEALTH: Taken to New Heights

14TH
ANNUAL

THE CARDIOMETABOLIC EVENT OF THE YEAR

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CHICAGO, IL

Omental Adipose Removal Decreases

High Blood Pressure in Hypertensive Patients Independent of Body Mass Index

AIMS

This study was designed to assess the impact of omental adipose removal by surgery on blood pressure in cancer patients with or without hypertension

Clinical Research



Methods

In this multicenter, cohort 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

Results

133 patients were included and all completed follow-up. H&OR group showed significant reductions in SSBP and SDBP at 1-m (-16.94/-10.50 mmHg, both $P < 0.001$) and 8-m endpoint (-16.00/-5.50 mmHg, $P < 0.001$ and $P = 0.004$).

Little reductions were observed with BMI of patients in 3 groups (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 H&OR groups.

Figure 2

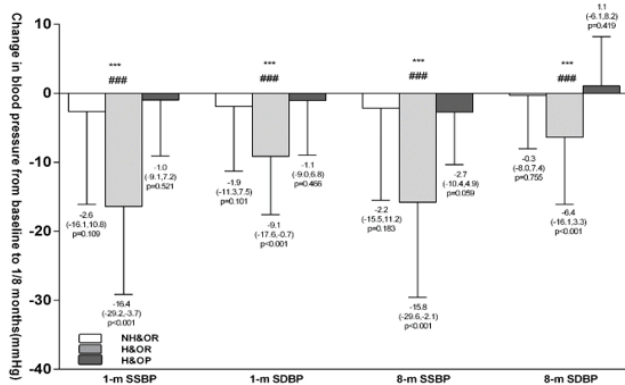
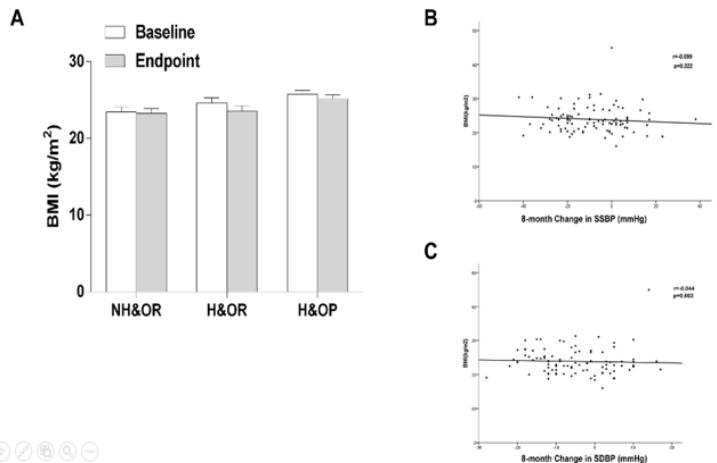


Figure 3



Results

Comparison within each group pre-/post operatively: In the H&OR group, triglyceride levels were significantly increased. In NH&OR group, triglyceride levels were also significantly increased, and only serum albumin levels were significantly decreased postoperatively. In H&OP group, 4 indices were significantly improved after surgery, including serum albumin, total bilirubin, direct bilirubin and fasting blood glucose levels.

Among the 3 groups, metabolic markers in the NH&OR group showed the least significant changes before and after the operation.

Conclusions

Resection of omental adipose tissue represents an impact for reducing SSBP and SDBP at 8 months in hypertensive patients independent of BMI, even in the non-obese hypertensive population.

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