

## **SODIUM ABSORPTION MAY DECREASE WITH WEIGHT LOSS IN OBESE POPULATION.**

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It was shown in the past that obesity induces salt retention by means of proximal tubular reabsorption. Our aim was to see if weight loss decreases sodium absorption and improves renal function. We analyzed retrospectively of 201 patients who underwent gastric bypass surgery by comparing gender, Body Mass Index (BMI), Mean Arterial Pressures (MAP), serum creatinine and serum sodium (Na) serum potassium (K). We examined pre-operatively and between 3<sup>rd</sup> and 12 months after gastric bypass surgery. Statistical Analysis was done using Pearson's correlation.

Of 201 patients, 43(21.3%) were male and 158(78.6%) were female with mean age of  $45 \pm 10$  years. BMI was  $53 \pm 8.7$  (n= 131) to  $40 \pm 9.5$  (n= 73). MAPs fell from  $100 \pm 12$  mmhg (n= 119) to  $89.5 \pm 12$  mmhg (n= 72). Serum Na levels were  $136 \pm 12.74$  (n=79) preoperatively and  $134 \pm 21$  (n=43) postoperatively. In individual Serum Creatinine levels were  $0.85 \pm 0.2$  preoperatively and  $0.7 \pm 0.17$  (n=34) post operatively. In individual patients Systolic blood pressures were directly correlated with weight loss (p=0.02). K levels were found to be negatively correlating with MAP (p=0.008). Change in creatinine ( $\Delta$  creatinine/creatinine before surgery) showed a positive correlation with change in sodium ( $\Delta$  sodium/sodium before surgery) (p=0.010). Weight loss may lower serum sodium levels and indirectly contribute to decreasing the blood pressure. Improved blood pressures with decreased Improved Blood pressures with reduction in serum Na and increase K suggest decreased activity of the rennin-angiotensin axis with weight loss.