

HIGH PREVALENCE OF MICROALBUMINURIA AMONG OBESE PATIENTS SHOWS IMPROVEMENT FOLLOWING BARIATRIC SURGERY

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The association of obesity and microalbuminuria is widely accepted but the effect of bariatric surgery has not been extensively studied. We reviewed the charts of 205 patients who underwent the Roux-en-Y procedure between Jan 2006 and July 2008. We found 55 pts (91% female, 43.5 ± 11.4 yrs, 121 ± 21.4 Kgs, BMI 45.5 ± 7.7 , 40% HTN, 27% DM) who had pre- and post-operative urinary albumin excretion measured within a year of surgery. Significant UAE ($>20\text{mg/g}$) was noted pre-op in 22 (40%) pts, 5 of whom had HTN, 1 had DM and 4 had both. These 22 pts did not differ from those with $\text{UAE} < 20 \text{ mg/g}$ with respect to time elapsed between surgery and the postoperative UAE (66 ± 68 vs. 102 ± 103 days), age (45 vs. 43 yrs), gender (96% vs. 87% female), baseline BMI (45.5 vs. 45.7), change in weight (14.3 vs. 17.2 Kgs), the prevalence of DM (18% vs. 33%), HTN (36% vs. 42%). Among these 22 pts with $\text{UAE} > 20\text{mg/g}$ we noted a significant decrease in the level of UAE (98.6 to 33.4 mg/g, $p=0.04$), and BMI (45.5 to 39.5, $p<0.001$), with no significant correlation. Pts without significant UAE did not have a significant change in UAE postoperatively. The drop in UAE for pts with $\text{UAE} > 20\text{mg/g}$ significantly correlated with the baseline UAE ($\rho=0.937$, $p<0.001$) and was not influenced by DM or HTN. The post-op prevalence of $\text{UAE} > 20 \text{ mg/g}$ was significantly lower (40 vs. 20%, $p<0.01$) and closer to that of the general population. Larger cohorts of bariatric surgery pts could provide an opportunity to study the inter-related influences of BP, glucose tolerance and obesity on microalbuminuria.