

AB049. 31. Influence of bariatric surgery on cholesterol and lipid profile

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Background: The aim of this study was to evaluate effect of bariatric surgery on lipid profile at 12 months post-operative.

Methods: Patient charts were reviewed retrospectively. Cholesterol and lipid levels were obtained from the Metabolic Surgical Unit Database and the hospital electronic records.

Results: A total of 276 patients were evaluated between May 2011 and December 2016. Sixty-eight percent (n=187) were female. The average (SD) age was 47 [12] years. The median BMI was 48 (range, 37–59) kg/m². Sixty-four percent (n=177) underwent gastric bypass and 36% underwent sleeve gastrectomy. The median BMI at 12 months post-operative was 33 (range, 22–44) kg/m². Pre-operatively 64% (n=177) were diagnosed with dyslipidaemia of whom

39% (n=69) were on lipid-lowering medication. Eighty-six percent (n=237) had abnormal pre-operative fasting lipids. At 12 months post-operative there was no significant difference in the mean (SD) cholesterol levels [4.48 (1.2) *vs.* 4.75 (0.95), P=0.3]. There was a significant drop in the mean (SD) triglyceride levels [1.7 (0.9) *vs.* 1.13 (0.49), P<0.001] and the number of patients with levels >1.7 mmol/L (38% *vs.* 10%, P<0.001). There was a significant increase in mean high-density lipoprotein cholesterol (HDL) [1.07 (0.4) *vs.* 1.49 (0.33), P<0.001] and the number of patients with levels >1.0 mmol/L (54% *vs.* 96%, P<0.001). Triglyceride levels normalized in a greater percentage of patients who were not taking lipid-lowering medications post-operatively (13% *vs.* 3%, P<0.001)

Conclusions: The incidence of diagnosed and undiagnosed dyslipidaemia is very high in morbidly obese patients presenting for bariatric surgical intervention. Surgery results in a broadly improved lipid profile. However, cholesterol levels are unpredictable with an overall tendency towards increased cholesterol levels by 1-year post-operative.

Keywords: Bariatric surgery; lipid

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