Retrospective study on the efficacy of antiretroviral treatment after bariatric surgery

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Effective antiretroviral treatment offers HIV patients a normal life expectancy. However, as in the general population, obesity is a recurrent problem in HIV patients, partly due to lipid disorders caused by antiretroviral therapy. Bariatric surgery may be an option for these patients when diet and exercise are not sufficient, but its safety has not been fully tested in these patients. This was a monocentric retrospective study held at Saint-Pierre Hospital, Brussels, Belgium. We compared 14 obese HIV affected women (G1) after bariatric surgery, with 45 obese women HIV (G2). A primary outcome was CD4, CD8, HIV viral load and secondary factors were lipid metabolism, phosphocalcic metabolism and renal function. Patients in Group-1 (G1) had an average age of 46.07 years and a BMI of 44.11 kg/ m². After performing sets of paired comparisons, testing differences before and after surgery by means of paired T-tests and paired Wilcoxon signed rank tests, we observed stability in count CD4, CD8 and HIV viral load, with CD4: before 762±380, after 648±399 with p-value 0.33; CD8: before 737±466, after 828±306 with p-value 0.47 and HIV viral load was 0 before and after surgery; phosphocalcic metabolism, renal function and lipid metabolism were stable. We compared (G1) to (G2): propensity score was performed; we applied a Bonferroni correction for multiple comparisons. No differences were found between CD4 count, CD8 count and viral load before and after surgery; count CD4: 762±380 (G1), 648±399 (G2) with p-value 0.33; CD8: 737±466 (G1), 828±306 (G2) with p=0.47 and HIV viral load 0 (G1), 5.79±42 (G2) with p=0.21. Secondary outcome was: no differences were observed in Calcium: 2.24 mmoles/l±0.12 (G1) vs. 2.28±0.12 (G2), p=0.28; Phosphorous: 1.09 mmoles/l±0.15 (G1) vs. 1.16±0.13 (G2), p=0.133; Cholesterol T: 186.43 mg/l±42.24 (G1) vs. 166.92±19.47 (G2), p=0.078; Triglyceride: 95 mg/l±47 (G1) vs. 124±28 (G2), p=0.009. Fg is the only variable significantly differing in the two groups under study, with a higher level of Fg observed in the with surgery group (means=93.79, SD=12.77), compared to the no-surgery group (means=81.36, SD=12.30, adj. P<0.001). Bariatric surgery can be a safe option for the treatment of obesity in obese HIV patients-stability in CD4, CD8 counts and in viral load in HIV affected patients was noted, as well as improvement in glomerular filtration. We found no consequences on phosphocalcic and lipid metabolism.

Biography
Souama Oualid is presently an Anesthesiology Resident at Université libre de Bruxelles, Belgium. He is also an on-call Senior Physician at the Emergency Department, Tournai and an on-call Senior Physician of Acute Care Unit, Brussels.

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