Abstract
Bariatric surgery developed in the late 1970 to treat severe hyperlipidemias in overweight individuals, not necessarily obese. Several techniques have been developed, and the concept has come first of a surgery for morbid obesity, then of a cure for diabetes in morbid obesity. There are other aspects of bariatric surgery that deserve attention, beyond BMI and diabetes, such as hypertension, poor life expectancy, increased prevalence of cancer, congestive heart failure, social inadequacy. The aim of this presentation is to review some recent development in clinical research, in the fields of liver steatosis, ferritin metabolism, and cholesterol metabolism. Liver steatosis, also called fatty liver encompasses a graduation of diseases with different clinical relevance and prognosis. NAFLD correlates with atherosclerosis, insulin resistance and diabetes mellitus. There is now evidence that weight loss, obtained through diet or restrictive surgery, reduces the prevalence (and the severity) of NAFLD. An other issue is represented by serum ferritin concentrations, that are strongly associated with fibrosis, portal and lobular inflammation in NAFLD patients, especially in the presence of obesity. Body iron contributes to excess oxidative stress already at non iron overload concentrations. Moreover, serum ferritin is an important and independent predictor of the development of diabetes. Weight loss is accompanied by reduction of ferritin, more after restrictive than malabsorptive surgery. Metabolic changes are greater after malabsorptive or mixed surgery than after purely restrictive surgery, and this has been ascribed to a greater weight loss. Studies comparing the two kinds of surgery indicate that, for the same amount of weight loss, decrease of cholesterol is greater with the former than with the latter techniques, and this difference is mainly due to a greater reduction of intestinal absorption of cholesterol. In the choice of surgery for the single patient, among other aspects, malabsorptive surgery seems to be more indicated in subjects with hyperlipidemia, especially with high cholesterol levels.

Keywords