Purpose

This study aims to identify changes in lean and fatty body components by segments recorded by DXA (Dual Energy X-ray Absorptiometry) in patients before and after at least 36 sessions of a Phase II cardiac rehabilitation program at a Clinic Of Bogotá (Colombia). To resolve the information gaps on the exact changes in body composition determined by the DXA method after a formal phase II cardiac rehabilitation program has been completed, as well as to determine the relationship between the changes in differentiated body components (fatty and lean) by segments and the change in METs, waist circumference and BMR after a cardiac rehabilitation program.

Results

There was a significant change in metabolic equivalents (MET) with an increase of 2.62 to 6.35 METs (P < 0.0001), an increase of 1.22% (P = 0.031) in the basal metabolic rate (BMR), not significant changes in fat mass, significant increase in total lean mass with increase of 1.76% (P = 0.053), increase of lean mass of legs in 5.21% (P = 0.001) and increase of skeletal muscle mass index in 2.27% (P = 0.016) more prominent in men. There was also a strong positive correlation between total fat mass and visceral adipose tissue in males (P = 0.0002).

Conclusions

A cardiac rehabilitation program improves significantly the exercise tolerance, increases skeletal muscle mass index and increases total lean mass and lean mass of legs, especially in men; and does not modify BMI, waist circumference, or total fat mass significantly.

DXA Analizer: Variability Rate of Lunar iDXA was 0.27 to 0.31%