ABSTRACT

The aim of the work was to evaluate significant changes in body composition in Czech breastfeeding women during lactation and to confront them with the already available results of other similar studies. For this purpose, 10 female participants of the longitudinal study were selected.

Body composition was determined by bioimpedance spectroscopy with a Fresenius Body Composition Monitor. Furthermore, anthropometric methods were used to evaluate the basic body parameters and compare their dependent loss with the values measured by BCM. The measurement was repeated in four periods - 3 weeks, 3 months, 6, and 9 months after delivery.

During the observed period, an overall decrease in median weight of 4,2 kg was observed in lactating women. The median weight 9 months postpartum was still 1,2 kg greater than the median weight before pregnancy.

No statistically significant differences in body composition were found during lactation.

Human milk volume correlated positively with age of women (p = 0,0404; r = 0,3386), negatively with calf circumference (p = 0,0313; r = -0,3545), chin skinfold (p = 0,0198; r = -0,3816), triceps skinfold (p = 0,0905; r = -0,3302), LTI (p = 0,0216; r = -0,3767) and Cm (p = 0,0490; r = -0,3260). Correlations were also found between milk volume and some values needed to calculate bone mass, specifically wrist width (p = 0,0063; r = -0,4662) and femoral epicondyle width (p = 0,0583; r = -0,3329).

The study showed significant correlations between human milk volume and values measured by BIS or some anthropometric parameters. Trends in changes in body composition and weight loss of lactating women have been described.

Key words: lactation, body composition