INTRODUCTION: Cerebral palsy is the most common cause of disability among children. Parent's main concerns are the acquisition and improvement of gait. The aim of this study was to compare long term results of the effect of two modalities of gait training.

METHODS: Quantitative measurement of gait and clinical assessment of the gross motor function classification system and Modified Ashworth Scale were performed in 14 patients with Cerebral palsy -spastic hemiplegia and randomly assigned into two groups of treatment: the first one using a driven gait orthosis (Lokomat®) and the second a gait training a long a rail inside a hydrotherapy tank. Measurements and assessments, above described, were performed immediately and one year after the treatment concluded.

RESULTS: Significant change was observed in the gross motor function classification system from II to I among children (p=0.042) and a positive correlation between the shape functional of the march and the gross motor function classification system (r = 0.54, p = 0.042). Patients on the Lokomat® training improved on gait symmetry over patients on the conventional therapy (p = 0.05). A year after, this intervention showed tendency to kept the gait patterns only on patients treated with the Lokomat®

CONCLUSION: Benefit obtained with either modality was evident for both groups. However, residual effects observed on the Lokomat group, either in clinical assessment or gait parameters, were more promising than in the conventional therapy. Due to the size of the sample used in this study the results are not conclusive and more research must be done on this subject in long term time horizon.