ABSTRACT

THE HIP SURGERY IN THE PATIENT WITH CEREBRAL PALSY AND THE EFFECT ON THE GROSS MOTOR FUNCTION CLASSIFICATION SYSTEM

The aim of this study is to determine results of the surgery for the hip subluxation or dislocation in the patient with cerebral palsy and whether the surgical procedure effects on the Gross Motor Function Classification System. This study was performed at Adnan Menderes University Medical Faculty Application and Research Hospital Orthopaedy and Traumatology Department between March 2003 and February 2008. It included 26 patients with cerebral palsy who had hip subluxation and dislocation The patients were between the age groups of 5-17 years. Gait imbalance, sitting imbalance, perinal care difficulty and pain were the major symptoms of the patients. The mean age at the time of surgery was 8.69±3 (5-17) and the mean follow-up time was 30±14 (12-57) months. Thirty-nine hips were operated. Seven hips were dislocated and thirty-two hips were subluxated. Subluxated hips were divided into three groups as mild (%21-25), moderate (%26-50), and severe (%51-99) according to migration index. Dislocation was defined as impairment of the relation between femoral head and asetabulum or %100 < migration index. We evaluated range of motion, flexion and adduction contracture of the hips in the physical examinaton and migration index, acetabular angle, acetabular index angle, center-edge angle, femoral and acetabular anteversion in the radiological assesment. According to hip pathology, we performed hip surgery as femoral varisation-derotation or femoral varisation-derotation shortening osteotomy with pelvic ostetomy. The gross motor function classification system was compared preoperatively and postoperatively to evaluate functional gain. After the surgery, radiological success was statistically significant. As a result of surgery we obtained improvement for the symptoms about %81 and the improvement of the gross motor function classification system was correlated with cerebral palsy type. Gross motor function classification system increased as %31, decreased as %7 and was the same with preoperative level of %62. We concluded that gross motor function classification system couldn't show the symptoms of patients and improvement of the symptoms was not correlated with the alteration of the gross motor function classification system. The improvement of the symptoms may be correlated with cerebral palsy type.

Key words: Cerebral palsy, Gross motor function classification system, Osteotomy

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