Reoperation Rates after Minimally Invasive Muscle-Tendon Lengthening for Cerebral Palsy

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INTRODUCTION. Selective percutaneous myofascial lengthening (SPML) refers to a group of techniques used for minimally invasive lengthening of muscle-tendon units in people with cerebral palsy. The long-term outcomes are not well described. Our hypothesis was that there are acceptable reoperation rates following SPML.

METHODS. A retrospective chart review was performed to identify all patients with cerebral palsy who between 2006 and 2011 underwent first SPML in the hip, knee, or ankle region at our institution. Data recorded included the performance of SPML reoperation.

RESULTS. Follow-up after first SPML was from 1 to 6 years in the 516 patients identified. The reoperation rates were 11% overall. All reoperations were outpatient procedures. To determine rates according to age at initial surgery, the patients were grouped as 2 to 5 years of age (123 patients), 6 to 9 years (156 patients), 10 to 13 years (128 patients), and 14+ years (109 patients). The reoperation rates were 13% in patients aged 2-5 years, and 12%, 9%, and 8% for those aged 6-9, 10-13 and 14+, respectively. Reoperation rates according to age and hip, knee, or ankle region were studied. The reoperation rates were highest in the ankle region in the group of children aged 2 to 5 years (11%) and at the hip in the groups aged 6 and older (10%). The reoperation rates were lowest in the knee region in the group of children aged 6-9 (2%) and in the group aged 14+ (0%).

DISCUSSION AND CONCLUSION. There is a low reoperation rate following this minimally invasive outpatient procedure. There was little difference in reoperation rates when looking at different age groups.