Management of pronation flexion deformity of forearm and wrist

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This work aims to give an idea about the management of forearm, wrist and hand deformity due to spastic cerebral palsy. So that it well be a guide for orthopaedic surgeons in how to evaluate the wrist and hand in cerebral palsy patients which is an essential step for determining the management strategy because not all patients are candidates for surgical treatment and careful selection for surgically treatment patient is important for to avoid postoperative disappointment. This work also clarify the non-surgical treatment options including casting which may be the first step in the management of hand deformities and also the benefit of orthosis in the pre and postoperative period, and discussing the medical treatment for spastic cerebral palsy patient and the most recent drugs in this area. This work discuss different surgical options for every deformity in the hand caused by spastic cerebral palsy, steps and advantages of every operation is mentioned to guide the orthopaedic surgeon in choosing the best for his patient. We studied 26 cases with pronation flexion deformities of forearm and wrist due to cerebral palsy. All patients deformities are due to cerebral palsy except two cases are due to spastic hemiplegia. The cardinal clinical manifestation are forearm pronation and wrist and fingers flexion. The cases are assessed only clinically to evaluate the deformity, muscle power, ability to grasp and release, and sensation. Assessment of the results was done clinically. The parameters for satisfactory clinical function were based on upper extremity functional use score in addition the amount of functional improvement in picking up, holding and releasing small object from the hand and in opening doors, releasing the brakes of a wheelchair, and receiving change also was assessed in the over all evaluation. At the end of follow up 16 cases (65.4%) were considered had excellent results, 7 cases (26.9%) had good results, 1 case (7.7%) had fair results and no cases had poor results. So the satisfactory results in 92% and unsatisfactory results in 8%.