Early versus late brachial plexus reconstruction in brachial plexus birth palsy

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Abstract:

1- Early versus late brachial plexus reconstruction in brachial plexus birth palsy

Introduction; Timing of surgical intervention for obstetric brachial plexus palsy is still a debatable issue for most microsurgeons. This study aims at elucidating the results of surgical intervention before and after the age of one year. Materials and methods; From January 1998 to September 2010, 100 patients suffering from brachial plexus birth palsy were treated by surgical reconstruction of brachial plexus. Patients were evaluated for functional recovery by Toronto scale. Follow up period was 1-8 years. Results; Functional results were compared as regards the age, type of reconstruction (neurolysis vs grafting vs neurotization). Conclusion; The earlier the surgical intervention, the better results, however this was not statistically significant until the age of one year.

2- Late tendon transfer around the shoulder in neglected obstetric brachial plexus palsy cases

Different surgical protocols for correction of internal rotation deformity secondary to OBPP have been described. It has been well identified that secondary bone changes starts at 2 years age and are complete at 4 years. Tendon transfer has been advocated to be performed before age of 4 to reverse these bony changes. Tendon transfer has been done for older age group instead of corrective osteotomy to obtain better function rather than cosmetic correction, where most patients complain of incomplete internal rotation. The need for anterior release should be tailored according to each case. Tendon transfer can be performed in older age group with completed secondary bone changes.

3- Recovery of hand function after microsurgical reconstruction of brachial plexus birth palsy

Introduction and aim of work; One of the most difficult missions is restoration of hand function in total obstetric brachial plexus palsy. Materials and methods; From January 1996 to June 2003, 39 total obstetric brachial plexus palsy were treated at The Reconstructive Microsurgery Unit, Assiut university by microsurgical reconstruction. Different techniques were used according to nature of lesion, avulsion or rupture. This included neurolysis, grafting and neurotization. Patients were evaluated and followed up for at least 4 years. Results and conclusion; Using Toronto scale, results were compared regarding type of lesion, age at surgical intervention and technique of reconstruction.

4- Results of Intercostal nerves neurotization in obstetric brachial plexus palsy cases

Introduction and aim of work; Intercostal nerves are well known donor nerves for neurotization in brachial plexus surgery. The aim is to elucidate the results of using intercostal nerves for different recipient nerves. Materials and methods; From January 1998 to June 2006, 38 patients with OBPP were treated by intercostal nerves neurotization. The recipient nerves included musculocutaneous nerve (20 cases), Lateral root of median nerve (15 cases), Radial nerve (5 cases), Medial root of Median nerve (4 cases), Lateral cord (3 cases), Axillary nerve and ulnar nerve (2 cases each), suprascapular nerve (one case). Patients were evaluated using Toronto scale. Results and conclusion; Results were compared as regard number of intercostal nerves used, age at surgical intervention, and recipient nerve.