LOWER TRAPEZIUS TENDON TRANSFER FOR SHOULDER INSTABILITY IN TRAUMATIC BRACHIAL PLEXUS INJURY : A CASE REPORT

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INTRODUCTION:

Tendon transfers are an influential reconstructive procedure to restore shoulder function particularly in paralytic conditions such as acquired or congenital brachial plexus palsy and massive irreparable rotator cuff tears which may lead to significant limitations with respect to range of motion (ROM), strength, as well as quality of life. Lower trapezius transfers were firstly described to restore external rotation in the management of brachial plexus palsy. When nerve transfer (neurotization) is unsuccessful or not possible in the case of brachial plexus injury, tendon transfers may be used to improve function while potentially avoiding salvage procedures such as glenohumeral arthrodesis or reverse total shoulder arthroplasty. Particularly when treating young active patients, tendon transfer may be preferred considering the potential functional limitations and longevity following joint replacement

REPORT:

We discussed on a case of a 30 year-old gentleman who involved in road traffic accident resulted in a left pan-brachial plexus injury 4 years ago. Over 8 months he recovered lower trunk function and then underwent nerve transfer spinal accessory nerve (SAN) to suprascapular nerve (SSN) and Pronator Quadratus (AIN) to radial motor branch of ECRB for shoulder abduction and wrist extension. However the shoulder abduction function did not fully recovered and he complained of left shoulder instability and discomfort. We did a lower trapezius tendon transfer with the aim to restore the shoulder abduction and external rotation. 6 month post-operatively, patient outcome is very satisfying as his shoulder is stable without any discomfort anymore, and he is able to achieve at least 45 degrees of abduction as compared to only 10 degrees previously. Constant shoulder score improved from 15 to 44 points.

Figure 1: Achilles tendon allograft used as an extension graft for the tendon transfer procedure

CONCLUSION:

Lower trapezius transfer can improve shoulder function in a paralytic shoulder joint due to total brachial plexus injury. It is a good and reliable option for treating young and active patient and avoid last ditch salvage procedure such as glenohumeral arthrodesis.

REFERENCES:

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