

The Role Of Surgery In Treating Paediatric Brachial Neuritis: Two Case Reports With A One-Year Follow-Up

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INTRODUCTION:

Paediatric brachial neuritis (PBN) is an uncommon but devastating illness characterised by acute shoulder and arm discomfort that develops suddenly, followed by weakening and paralysis. The majority of cases are treated conservatively with steroids and immunotherapy. However, recent studies have revealed that the outcome varies depending on the therapy¹. In these two case reports, the patient was treated surgically.

REPORT:

Case 1

A baby girl who was 8 months old was referred to Orthopedic for unable to move her right upper limb after diagnosed with Hand, Foot, and Mouth Disease one week earlier. However, she made just a little improvement at her 3-month follow-up. She underwent surgery. 1 year follow show near complete recovery

Case 2

A 24-month-old boy was referred for right upper limb paresis that had occurred 1 weeks after he developed viral pneumonia. After 2 month with no improvement, he underwent surgery. 6 month and 1 year Post operatively show improvement in muscle strength.

Both patient underwent neurotization Spinal accessory nerve (SAN) to suprascapular nerve (SSN) and double oberlin procedure.

Summary of both patient presentation, progress and outcome was shown in figure 1. and figure 2

case	Preceding event	treatment	MRI
1	Hand foot mouth disease	Steroid and ivig	Thickening brachial plexus
2	Viral pneumonia	Steroid and ivig	Normal

Figure 1:

case	Motor power during presntation MRC score	Time to surgery	Motor power 1 year follow up MRC score
1	1 - 3	3month	4-5
2	0	2 month	1-3

Figure 2

CONCLUSION:

The role of surgery in PBN has not been studied further. We reported two examples of paediatric brachial neuritis treated with neurotization and followed up on them for a year. At the 1-year follow-up, two of the children had nearly complete recovery and were making considerably better progress.

REFERENCES:

1. Hu, Xiaoyue et al. "Four cases of pediatric neuralgic amyotrophy treated with immunotherapy: one-year follow-up and literature review." *The Journal of international medical research* vol. 48,3 (2020)