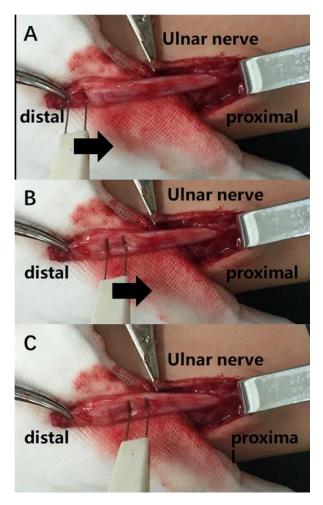
Supplementary Tables and Figures

Case	Gender	Age (years)	Cause of amputation	Level of amputation	Duration from injury to TMR	ARAT score Before surgery	ARAT score 1 year after surgery
1	Male	49	Injured by machine	trans-humeral	6 months	2	22
2	Male	23	Injured by machine	trans-humeral	6 months	2	29

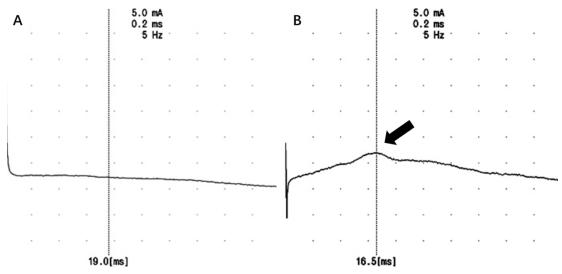
Supplementary Table 1: Characteristics of the two cases

Supplementary Table 2: Intraoperative CMAP test of the axillary nerve branches

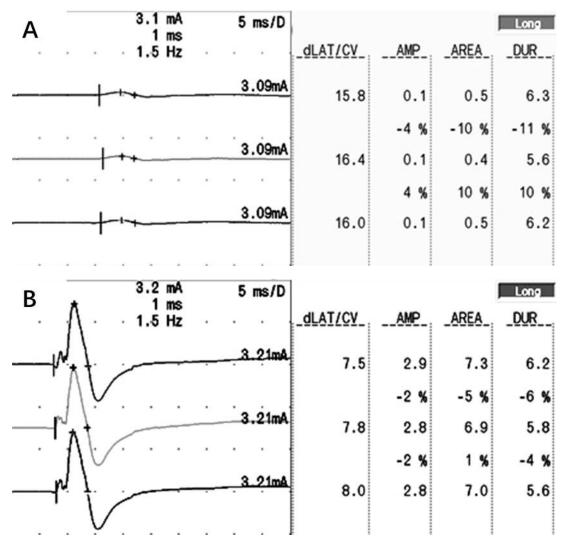
Stimulate the	A willow porto	Anterior	Posterior	Anterior	Posterior	Anterior	Posterior
point	Axillary nerve	branch	branch	branch	branch	branch	branch
detecting point	Deltoid muscle	Anterior part		Middle part		Posterior part	
CMAP	Case 1	3.47	0.20	3.10	0.30	0.10	2.83
amplitude (mV)	Case 2	4.80	0.37	4.20	0.53	0.17	4.90



Supplementary Figure 1: Moving the bipolar probe along the direction (black arrow) from distal to proximal during the intraoperative electromyography of the ulnar nerve.



Supplementary Figure 2: Intraoperative SEP test of different points of the ulnar nerve. A: Distal part without SEP; B: Proximal part with SEP (black arrow).



Supplementary Figure 3: Intraoperative CAMP of branches of axillary nerve, performed three time for average. A: CMAP amplitude of posterior part of deltoid was very small when stimulating anterior branch; B: CMAP amplitude of posterior part of deltoid was good when stimulating posterior branch.