

# Martin - Gruber



– Abstract –

## Martin-Gruber Anastomosis in Ulnar Neruopathy around the Elbow

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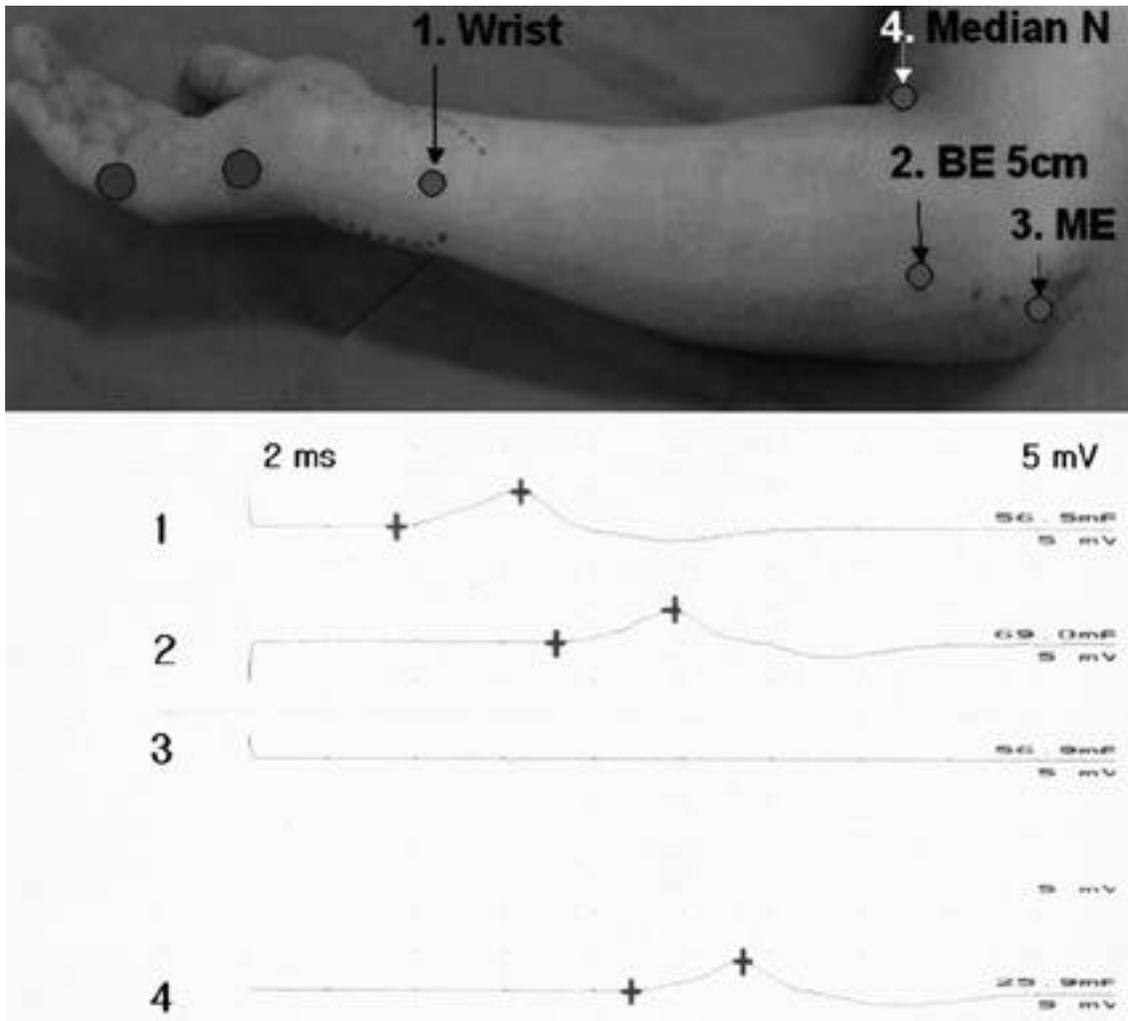
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The Martin-Gruber anstomosis may influence the ulnar nerve conduction study in ulnar neuropathy around the elbow or even in normal cases. We present a case of complete ulnar neuropathy above the elbow with Martin-Gruber anstomosis diagnosed as incomplete ulnar neuropathy. The presence of Martin-Gruber anstomosis may have important clinical implications and can be a diagnostic challenge for the electromyographer.

**Key words:** Martin-Gruber anastomosis, Ulnar neuropathy

|               |   |           |     |   |
|---------------|---|-----------|-----|---|
|               |   |           |     | 1                                       |
| Martin-Gruber | 가 | 5 ~ 40%   | 38  | 2001 11 9                               |
|               |   | 7.7 ~ 34% | 68% | , 2001 11                               |
| Gruber        | 가 | 3 Martin- | 10  |   |
| Martin-Gruber |   |           |     | 4, 5                                    |
|               |   |           |     | 1                                       |
|               |   |           |     | (first dorsal interosseous muscle) 4/5, |
| Martin-Gruber |   |           |     | (abductor digiti minimi) 2/5, 3, 4      |

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**Fig. 1.** Ulnar motor nerve conduction study in abductor digiti minimi muscle with stimulation at wrist (1), below elbow 5 cm (2), medial epicondyle (3), and median nerve (4).

(flexor digitorum profundus III, IV)  
 2/5, (flexor carpi ulnaris) 0-1/5  
 Froment  
 (dorsal ulnar cutaneous nerve)

8 cm  
 tin-Gruber  
 가

2 cm  
 Fig. 2  
 가

3, 4

5  
 5

cm  
 4.6 mV, 4.2 mV  
 3, 4

가  
 3.9 mV 가  
 (Fig. 1). 1  
 5 cm  
 8.3 mV, 7.7 mV  
 가

8.1 mV (Fig. 1).  
 Martin Gruber



**Fig. 2.** Electrophysiological findings according to the stimulation of Martin-Gruber anastomosis. Numbers indicate stimulation sites of Martin-Gruber anastomosis: 1, median nerve; 2, 2 cm medial to 1; 3, 2 cm medial to 2; and so on. The arrow shows the wound scar.

7.7 ~ 34% ,<sup>7-10</sup> Martin-Gruber 68%가  
 Thomson Martin-Gruber (anterior interosseous nerve),  
 Martin-Gruber 가 (branch) 1 89.5%, 가 가  
 가 2 10.5% , 1  
 가 가 a (47.3%), b  
 가 (10.6%), c 가 가  
 (31.6%) , c 가  
 Martin-Gruber a 가 ber  
 2.5 cm (2~3 cm) c 6  
 cm ( , 4.5~7.4 cm)  
 Martin-Gruber 가 8 cm 1 1 2  
 가 c 가  
 Martin-Gruber 5 cm 가  
 Rodriguez- Martin-Gruber , Martin-  
 Niedenfuhr<sup>17</sup> Martin-Gruber Gruber 가  
 가 가 Martin-Gruber Martin-Gruber

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