

Khám cảm giác bàn tay sau vết thương bàn tay

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Vai trò khám cảm giác sau vết thương bàn tay

- Chức năng bàn tay phụ thuộc vào vận động và cảm giác
- Chương trình tập vận động sau mổ gân gấp chủ yếu đề cập đến sự lành gân
- Lượng giá mức độ phục hồi thần kinh giúp ra quyết định lâm sàng:
 - Chương trình PHCN thần kinh: tư vấn chăm sóc, loại bài tập
 - Mổ thám sát thần kinh

Thuật ngữ (Terminology)

Sensation (primary sensation)		Sensibility (interpretation of sensation)	
Touch-pressure	Mechanoreceptors	Static pressure: Weber two-point discrimination, Von Frey test, Semmes-Weinstein pressure esthesiometer, Rigde sensitometer test	Merkel disc
		Moving touch with 30 cps tuning fork for flutter	Meissner corpuscles
		Moving touch with 256 cps tuning fork for vibration	Pacini corpuscles
Pain	Nociceptors		
Cold-Warmth	Thermoreceptors		
Sympathetic nervous system: Ninhydrin test (Sudomotor Function), O'Riain wrinkle test			
Tactile gnosis (nhận biết chất liệu): Moberg's pick-up test, Shape/Texture identification (STI) test			
Coordination: Nine-hole Peg Test....			

Thứ tự phục hồi cảm giác sau mổ vi phẫu nối thần kinh

NHÓM	CẢM GIÁC
I	Các sợi có myelin và không có myelin (đau > lạnh > nóng)
	Chức năng mồ hôi
II	Cảm nhận sờ
	Cảm nhận rung 32Hz
	Cảm nhận tiếp xúc động
	Cảm nhận tiếp xúc tĩnh
	Cảm nhận độ rung 256 Hz

Nguồn: Jobe MT (2007), "Nerve Injuries", Campbell's Operative Orthopaedics, p 3981-3994

Touch/pressure threshold test

- Determines light touch thresholds
- Effective in identifying impairments in nerve compression
- Equipment: Semmes-Weinstein Pressure Aesthesiometer Kit with 5 monofilaments
- Method:
 - From distally to proximally
 - Apply slowly 1 ½ s, hold 1 ½ s, lift slowly 1 ½ s



Khoa Nội tiết: 10g force = 5.07 size

COLOR CODE	DEFINITION	MONOFILAMENT SIZE RANGE
Green	Normal light touch threshold	1.65-2.83
Blue	Diminished light touch	3.22-3.61
Purple	Diminished protective sensation	3.84-4.31
Red	Loss of protective sensation	4.56-6.65
Untestable	Unable to feel largest monofilament	–

Static Two-point Discrimination

- Test measures innervation density
- Flexors zones I and II are tested
- Equipment: Disk-Criminator or Boley gauge
- Method:
 - longitudinal direction
 - Begin at 5mm
- 7 out of 10 correct responses are required
- Scoring:
 - 1-5mm = Normal
 - 6-10 mm = Fair
 - 11-15 mm = Poor
 - One point perceive = protective sensation only
 - No points perceived = anesthetic



Moving Two-point discrimination

- This Moving 2PD returns earlier than the Static 2PD (2-6 months)
- Method:
 - move from proximal to distal on the volar distal phalanx of the fingertip
 - Start at 5-8mm
- 7 of 10 correct responses are needed
- **2 mm is considered normal**



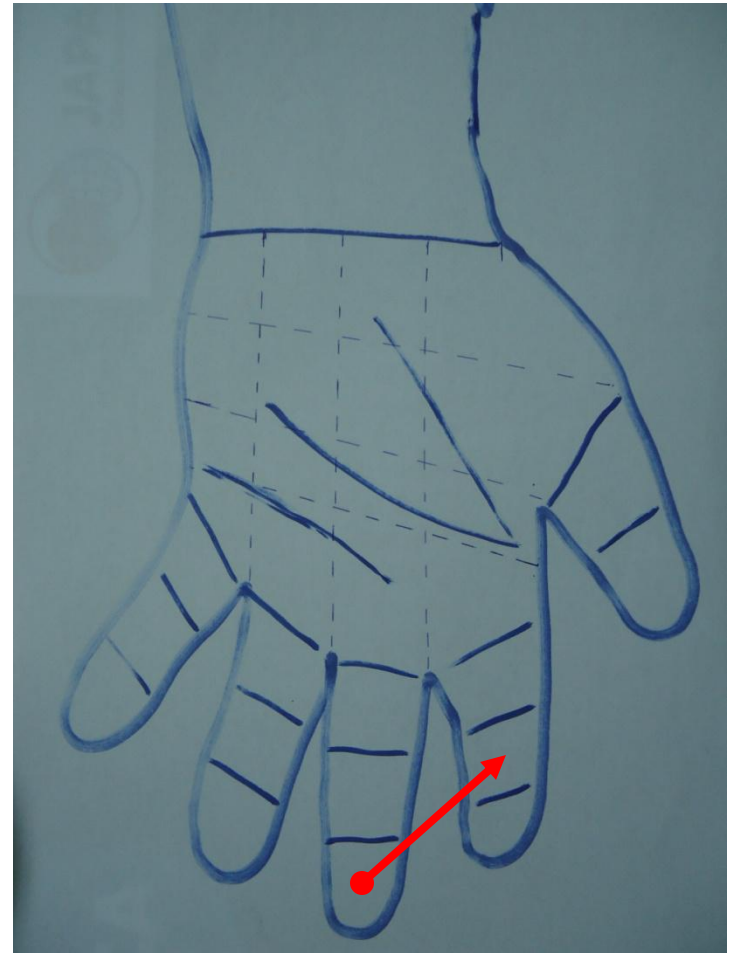
Vibration

- Determine threshold of touch and level of placement in a sensory reeducation program
- Equipment: tuning fork of 30 and 256 cps
- Method:
 - place fork on the fingertip
 - On-off method
 - Timed method



Localization of light touch

- To determine functional ability to locate touch on the hand
- This is the last sensory stimulus to return
- Equipment: SW monofilament or cotton ball



Moberg's pick-up test



Moberg E (1958). Objective method for determining the function value of sensibility in the hand. JBJS B:454-476

Use 10 standard objects: 50p piece, 10p piece, paperclip, safety pin, bolt, nail, washer, wing nut, small key...

Test completed sighted & then blindfolded & patient asked to identify objects

Recommendation for standard screening

- Monofilaments (touch-pressure) for nerve compression
- Monofilament and 2PD for nerve injury or laceration
- Repeat the assessment every 3 months

Tài liệu tham khảo

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