

# Protocolo MION en Cirugía de Tiroides en HGUA

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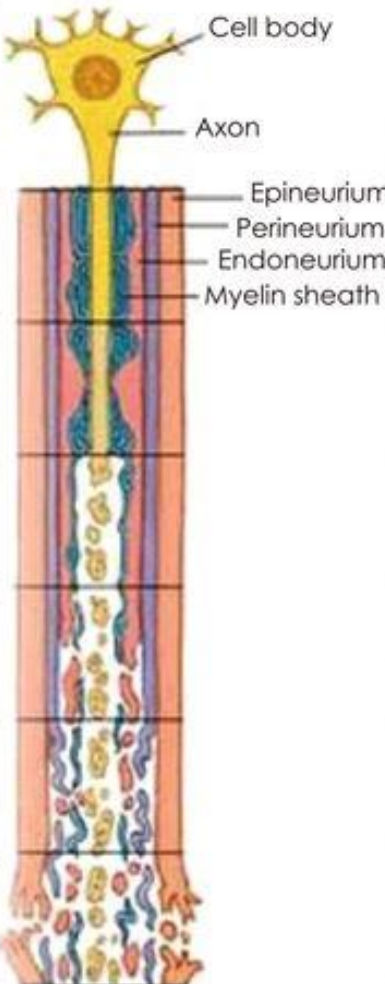
Servicio de Neurofisiología Clínica

Hospital General Universitario de Alicante

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# ¿POR QUÉ SE DEBE MONITORIZAR?

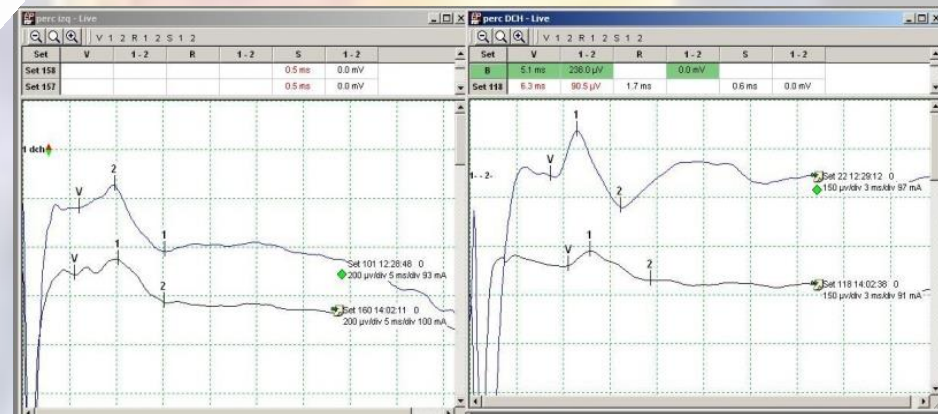
La integridad macroscópica neural **NO** es sinónimo de función conservada

Seddon	Sunderland		Injury	Degeneration	Regeneration
Normal			Normal	Normal	Normal
Neuropraxia	First degree		Myelin sheath (M)	Conduction block	Complete recovery
Axonotmesis	Second degree		M+Axon (A)	Wallerian degeneration	
Neurotmesis	Third degree		M+A +Endoneurium (E)		Incomplete recovery
	Fourth degree		M+A+E +Perineurium (P)		
	Fifth degree		M+A+E+P +Epineurium		

# Objetivo

- 1) **Advertir** de riesgo de lesión con determinadas maniobras quirúrgicas
- 2) **Reconocer** la lesión neural
- 3) **Documentar** el momento de lesión
  - 1) Entendimiento retrospectivo de los mecanismos de la lesión.
  - 2) Ajuste de la estrategia quirúrgica en el futuro
- 4) **Confirmar** que la estrategia quirúrgica es apropiada o por el contrario el cirujano ha de modificarla
- 5) **Predecir** el pronóstico funcional, mejorando el manejo clínico post-quirúrgico

# Protocolo de Monitorización



Conducción Motora Percutánea



**1. Colocación electrodo al TET**

**2. Comprobación correcta colocación TET**

**3. Monitorización Intraoperatoria**

- Nervio Vago
- NLR, NLS
- Otros...



# Protocolo de Monitorización

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## Electrophysiologic Recurrent Laryngeal Nerve Monitoring During Thyroid and Parathyroid Surgery: International Standards Guideline Statement

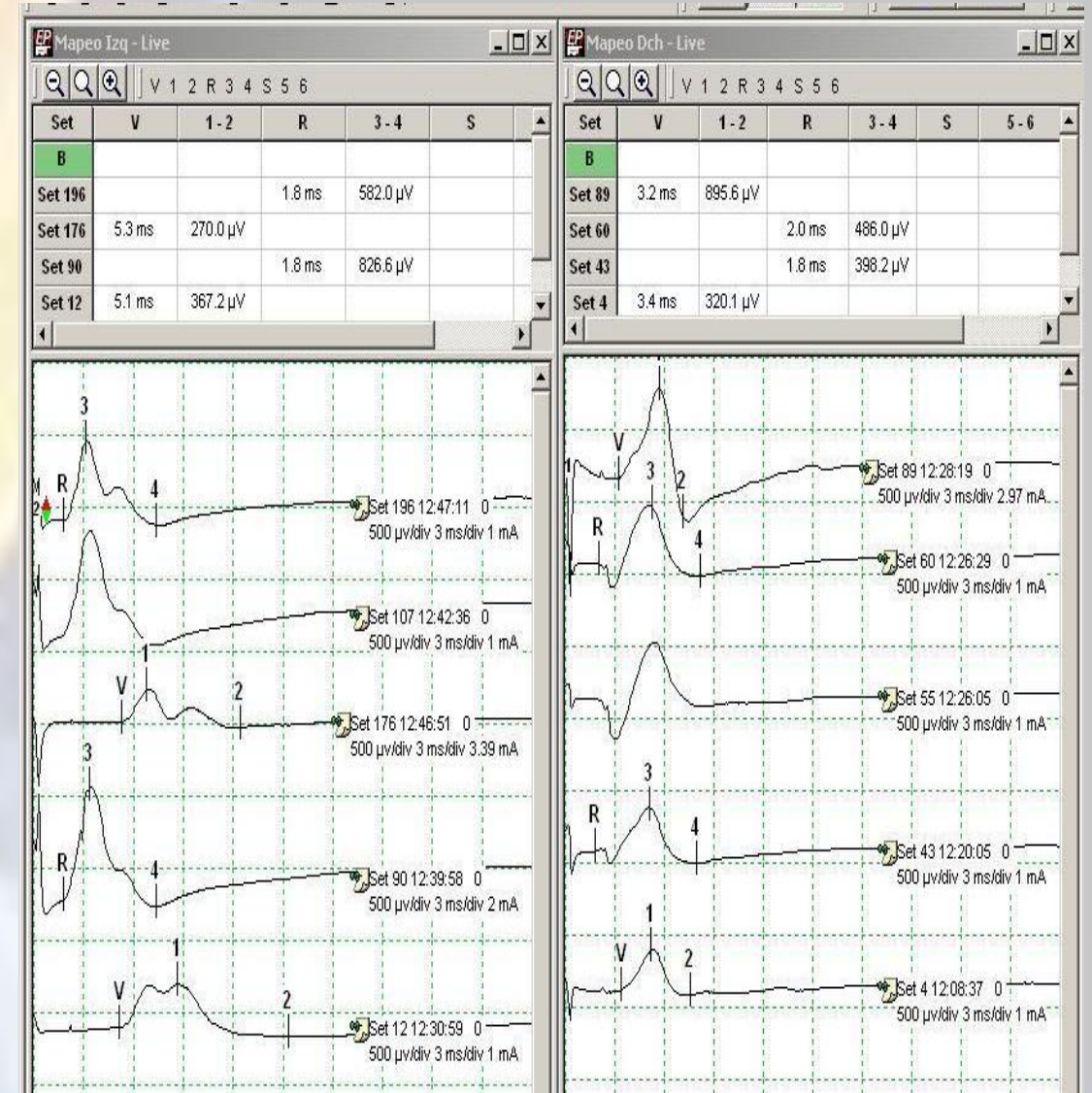
Gregory W. Randolph, MD; Henning Dralle, MD, with the International Intraoperative Monitoring Study Group\*: Hisham Abdullah, MD; Marcin Barczynski, MD; Rocco Bellantone, MD; Michael Brauckhoff, MD; Bruno Carnaille, MD; Sergii Cherenko, MD; Fen-Yu Chiang, MD; Gianlorenzo Dionigi, MD, FACS; Camille Finck, MD; Dana Hartl, MD; Dipti Kamani, MD; Kerstin Lorenz, MD; Paolo Miccoli, MD; Radu Mihai, MD, PhD, FRCS; Akira Miyauchi, MD, PhD; Lisa Orloff, MD, FACS; Nancy Perrier, MD, FACS; Manuel Duran Poveda, MD; Anatoly Romanchishen, MD; Jonathan Serpell, MD, FRACS, FACS; Antonio Sitges-Serra, MD; Tod Sloan, MD, MBA, PhD; Sam Van Slycke, MD; Samuel Snyder, MD, FACS; Hiroshi Takami, MD; Erivelto Volpi, MD; Gayle Woodson, MD

## Laringoscopia Preoperatoria (L1)

### Estimulación neural :

1. **V1:** Vago pre-disección
2. **R1:** NLR durante disección
3. **R2:** NLR post-lobectomía
4. **V2:** Vago post-lobectomía

## Laringoscopia Postoperatoria (L2)



# Intraoperative LOS Evaluation Standard



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Possible  
LOS

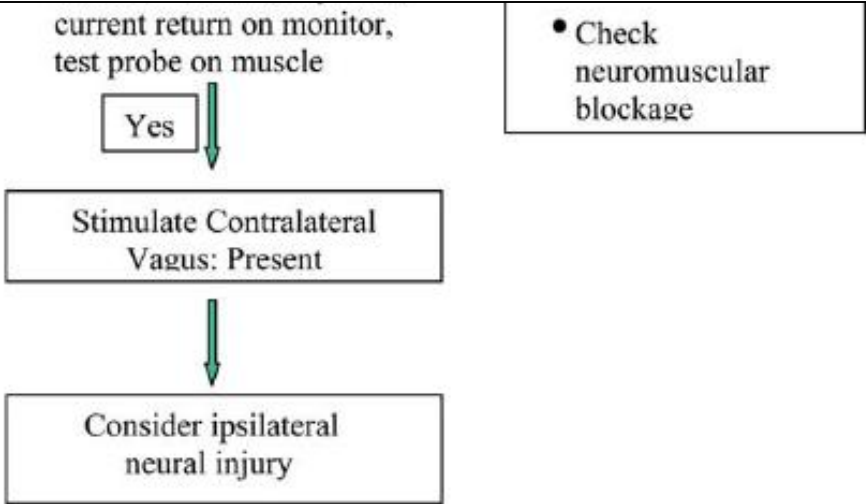
## LOS Definition:

- 1 -EMG change from initial satisfactory EMG
- 2 -No or low response (i.e. 100  $\mu V$  or less) with stimulation at 1-2 mA, dry field
- 3-No laryngeal twitch and/or observed glottic twitch

## With LOS:

- 1-Map lesion and determine Type I(Segmental) or Type II (Global) injury
- 2-Consider contralateral surgery timing

Larynge



• Check neuromuscular blockage

e Monitoring During  
nal Standards

nal Intraoperative Monitoring Study  
ntone, MD; Michael Brauckhoff, MD;  
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Woodson, MD

A close-up photograph of a hand holding a heart-shaped object. The heart is filled with a vibrant rainbow gradient, transitioning from red at the top to yellow, green, and blue towards the bottom. The hand is positioned with the palm facing upwards, and the fingers are slightly curled around the heart. The background is a soft, out-of-focus light blue and white, suggesting a bright, airy environment. The word "GRACIAS" is overlaid on the left side of the image in a bold, black, sans-serif font.

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