

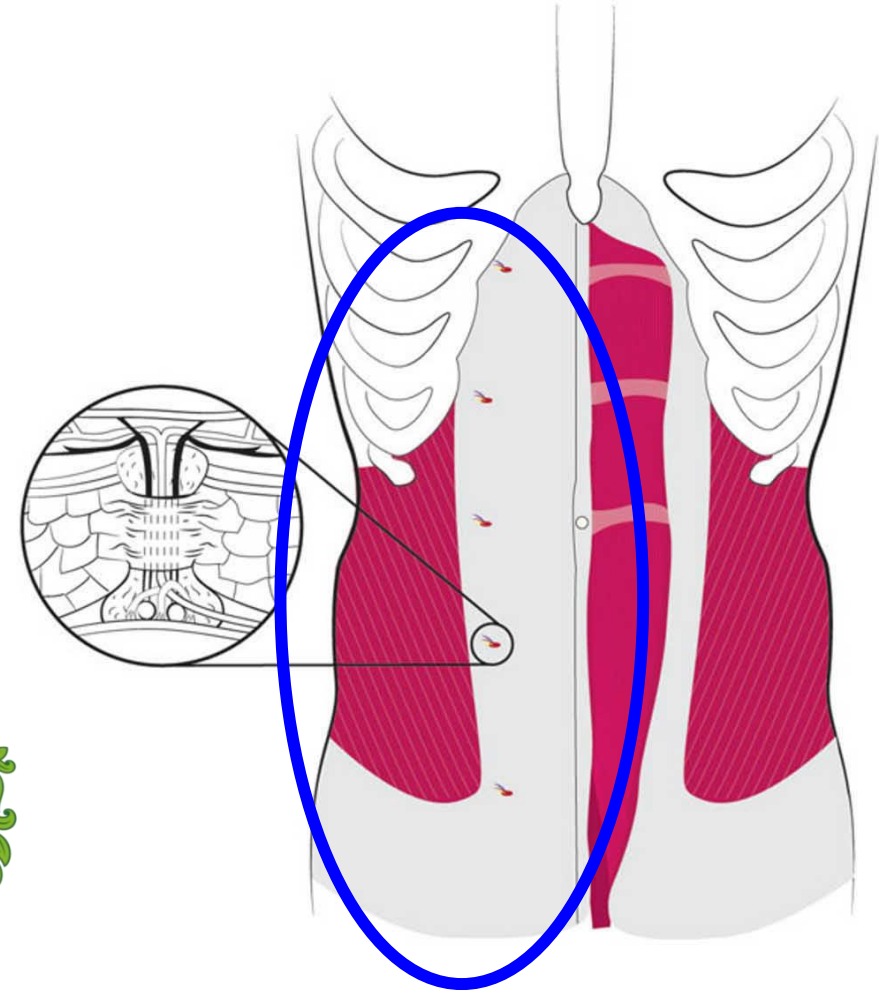
**XXII Convención Internacional de Gastroenterología**  
**Noviembre 18,19 2022 AGAN**



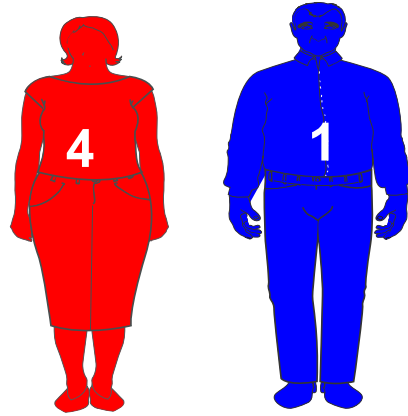
# Dolor de la pared abdominal



**William Otero R MD, FAGA, FASGE, FACP**  
**Profesor Titular de Medicina,**  
**Universidad Nacional de Colombia**  
**Hospital Universitario Nacional de Colombia**



# Dolor de la pared abdominal



**30-50 años**

**2% Urgencias**

**30% Dolor abdominal crónico**

Sweester S, Mayo Clin Proc 2019;94:347-85

Glissen Brown JR, J Clin Gastroenterol 2016;50:828–35.

**48 % Universidad Nacional de Colombia**

Otero W, Rev Col Gastroenterol 2007;22:261-71

**Up Date  
2022**

**Less common causes of abdominal pain**

Abdominal aortic aneurysm
Abdominal compartment syndrome
Abdominal migraine
Acute hepatic porphyrias (eg, acute intermittent porphyria)
Angioedema (either hereditary or angiotensin-converting enzyme [ACE] inhibitor-related)
Celiac artery compression syndrome
Chronic abdominal wall pain
Colonic pseudo-obstruction (acute or chronic)
Eosinophilic gastroenteritis
Epiploic appendagitis
Familial Mediterranean fever
Helminthic infections
Herpes zoster
Hypercalcemia
Hypothyroidism
Lead poisoning
Meckel's diverticulum
Narcotic bowel syndrome
Paroxysmal nocturnal hemoglobinuria
Pseudoappendicitis
Pulmonary etiologies
Rectus sheath hematoma
Renal infarction
Rib pain
Sclerosing mesenteritis
Somatization
Wandering spleen



??

**Dolor  
Abdominal  
crónico**



**Múltiples  
causas**

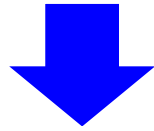


**Desafío**  
MD cuidado primario  
MD especialista  
Equipos médicos  
Hospitales referencia

**Dolor abdominal crónico  
en gastroenterología**

**50%**  
**Idiopáticos**

**10-90%**



**Estructuras de la  
pared abdominal**

**Dolor abdominal crónico  
de la pared abdominal**

# Dolor pared abdominal

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## Estructuras de la pared abdominal

### Atrapamiento nervio cutáneo anterior

Lesiones quirúrgicas

Hernias pared abdominal

Hematomas/lipomas

Dolor miofascial

## Dolor abdominal referido

Cartílago xifoides

Costilla flotante

## Dolor radicular

Herpes Zoster

Radiculopatía diabética

Srinivasan R, Am J Gastroenterol 2002;97:824-30

De Andrés J, Rev Soc Esp Dolor 2006;3:173-83

# Compromiso del nervio cutáneo anterior

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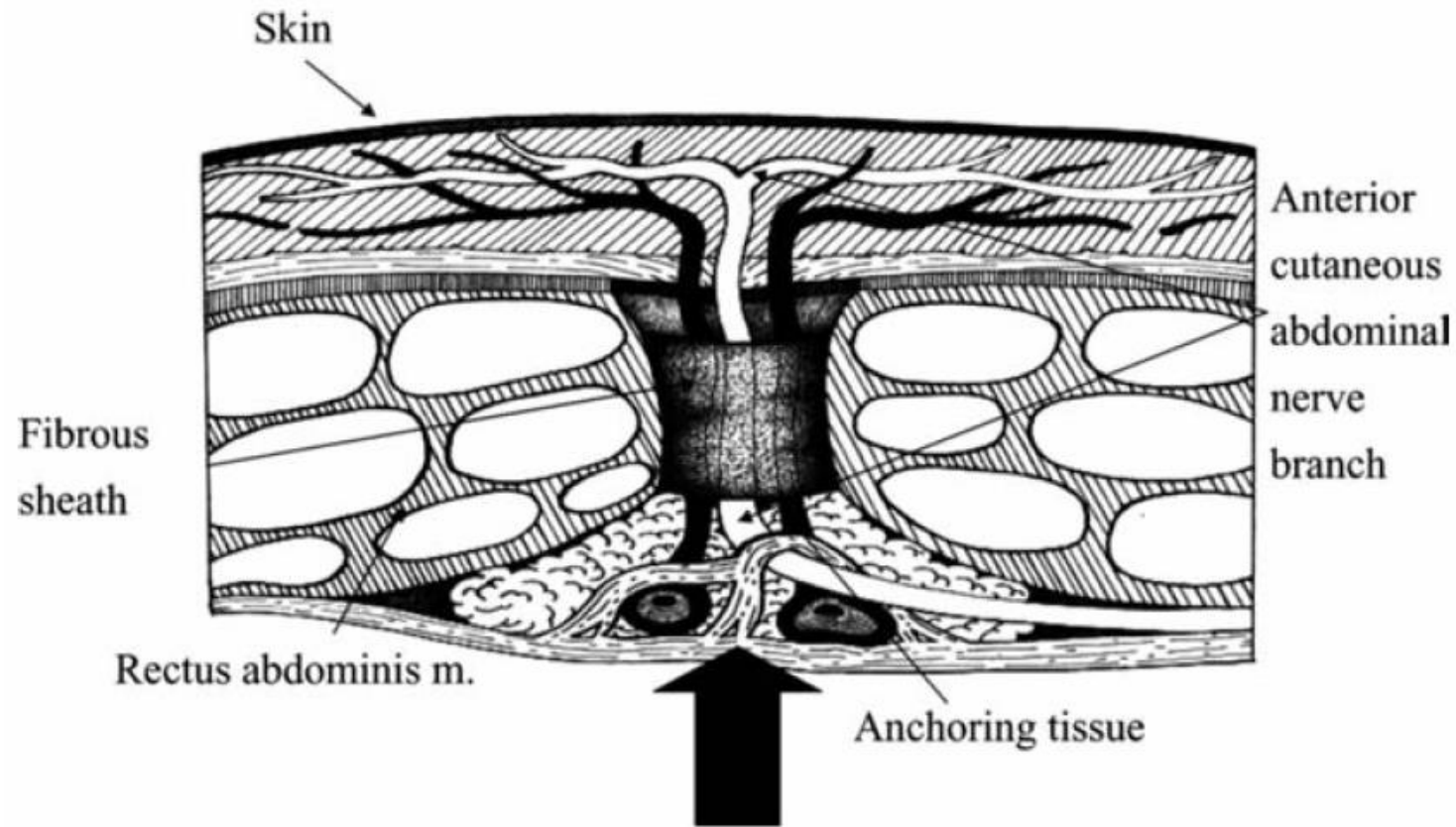
“Síndrome de atrapamiento nervioso  
Cutáneo abdominal”

**ACNES: “*abdominal cutaneus nerve  
Entrapment syndrome*”**

Metha M, Anaesthesia 1971;26:791-2

Applegate WV. Am Fam Physician 1973;8:132-3

# Rama cutánea anterior, Nervios Intercostales T7-T12



**Aumento presión intraabdominal**

**Aumento de presión en pared  
Ropa, cinturones obesidad**

# Características clínicas del DACPA

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**Diario, agudo, crónico**

**Continuo o intermitente**

**Puede coexistir en varios sitios**

**Se intensifica con distensión abdominal**

**No asociado a Menstruación**

**Ingesta alimentos?,  
Deposición?**

**Agravan los síntomas  
Toser, reír, obesidad**

**Srinivasan R. Am J Gastroenterol 2002;97:824-30  
Otero W, Rev Colomb Gastroenterol 2017; 32:75-81  
Sweester S, Mayo Clin Proc 2019;94:347-55**

# **Dolor de la pared abdominal**

## **Un diagnóstico olvidado**

**Cyriax EF**

**Practitioner 1919;102:314-22**

**Carnett JB**

**Surg Gynecol Obstetr 1926:42:625**

# **Dolor crónico de La pared abdominal**

**Signo de Carnett (+), A y B**

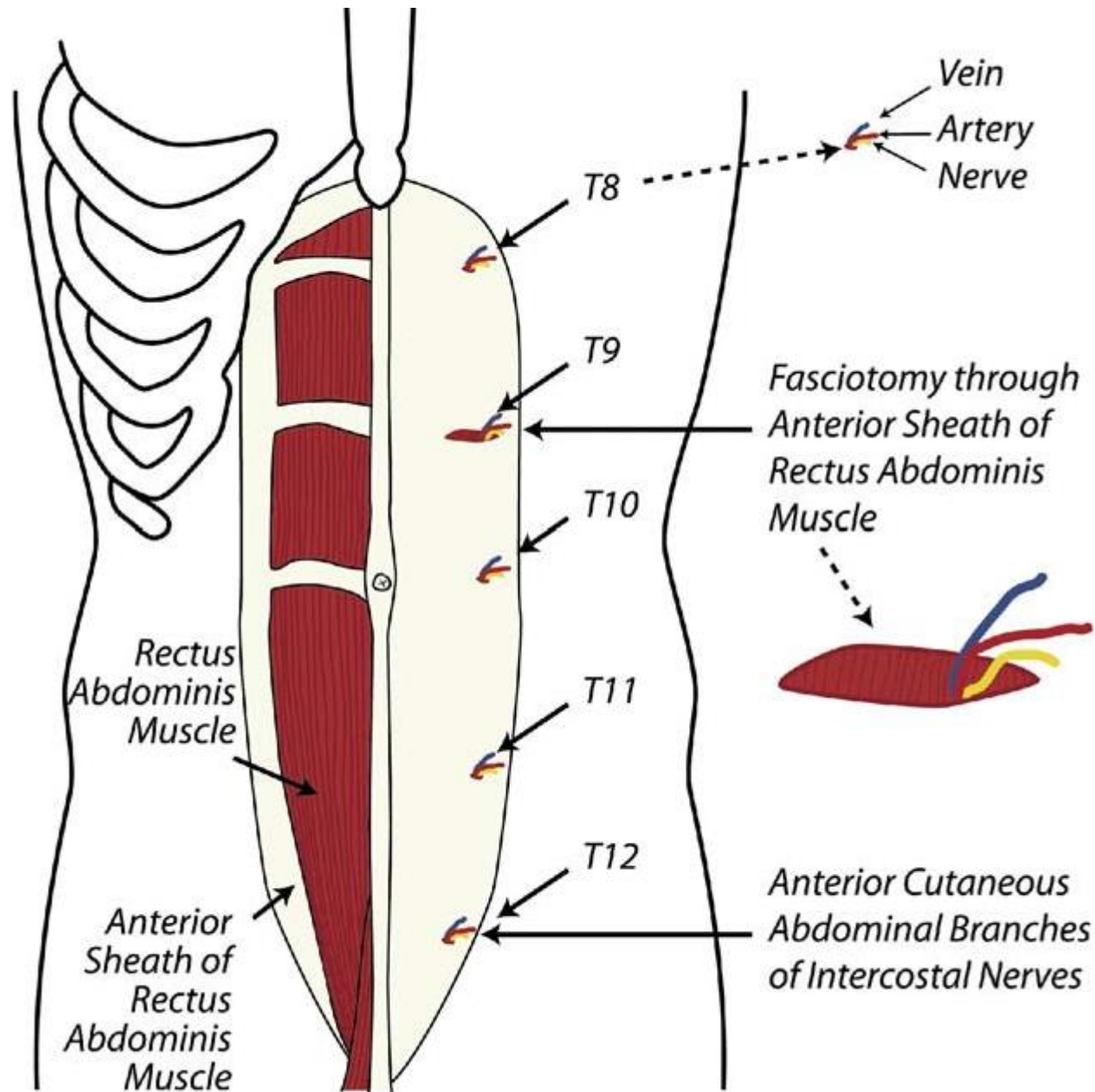
**Srinivasan R. Am J Gastroenterol 2002;97:824-30  
Longstreth GF. NEJM 2006;354:791-3**

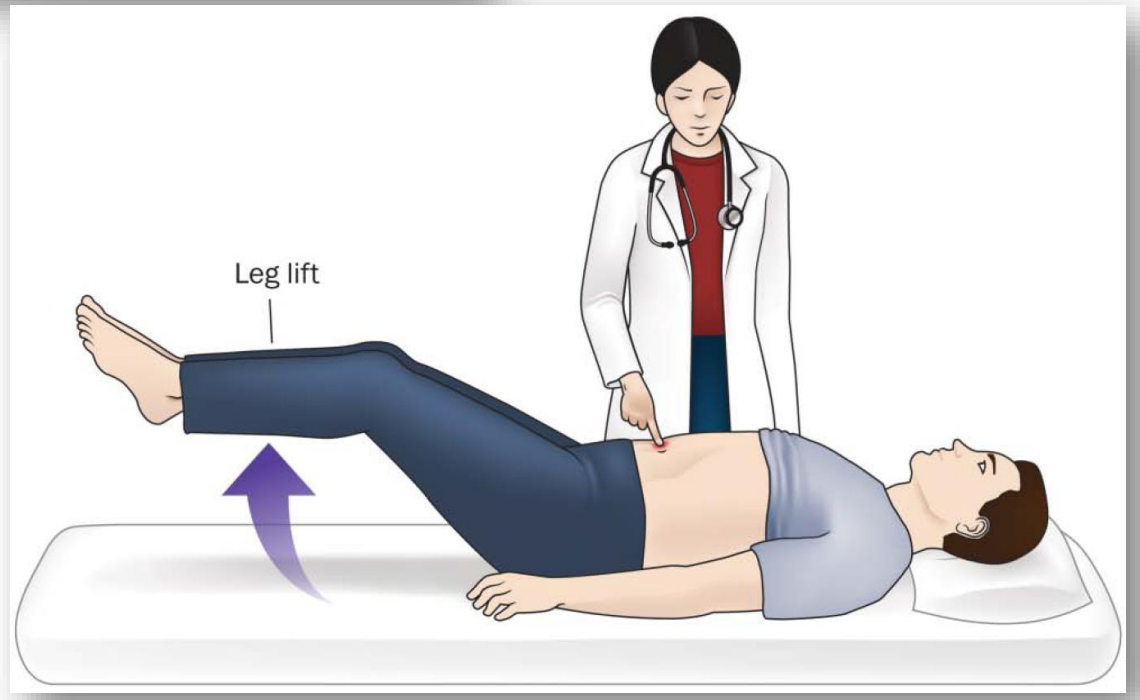
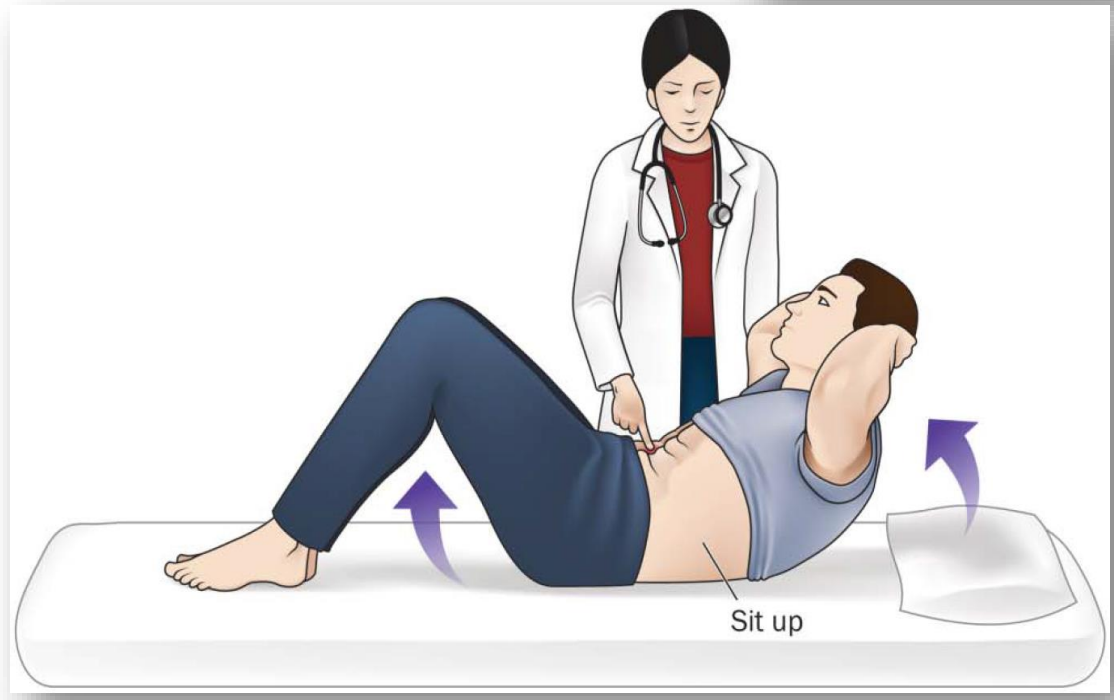
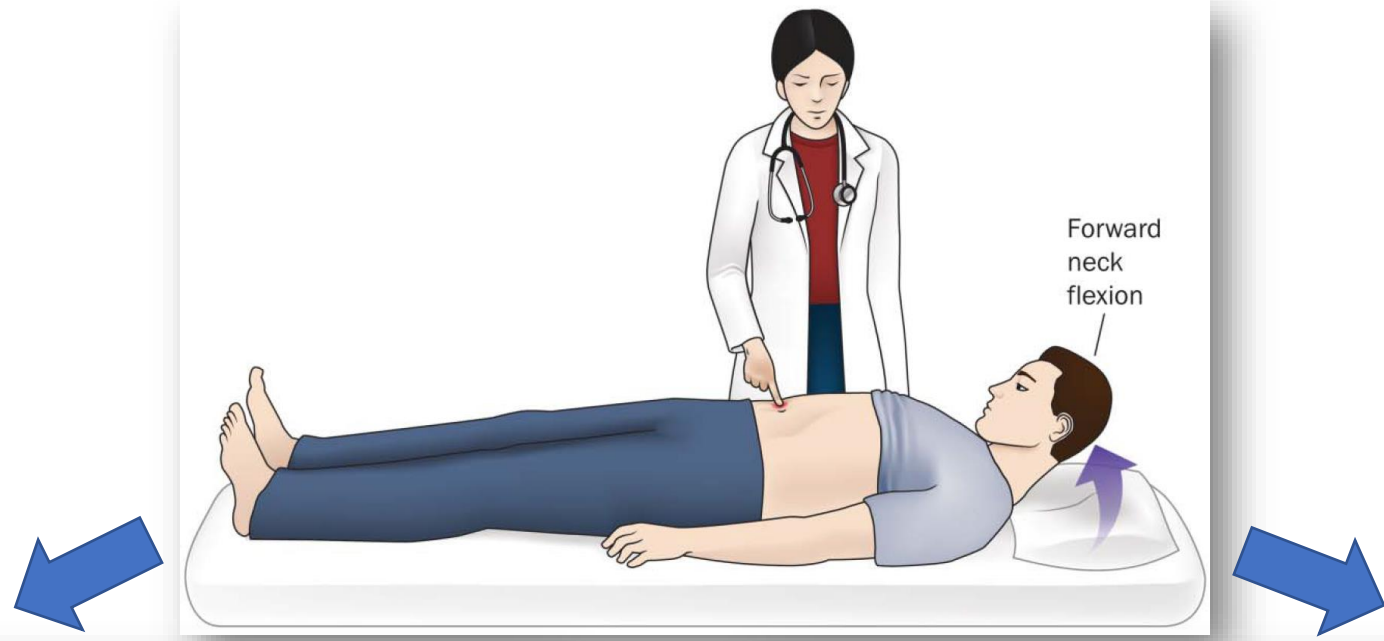


## **Receptores A Delta: Heridas superficiales Traumatismos, Dolor parietal**

Srinivasan R, Am J Gastroenterol 2002;97:824-30  
De Andrés J, Rev Soc Esp Dolor 2006;3:173-83

# T7-T12





Singla M, Am J Gastroenterol 2020;115:645-47.

# **Dolor crónico de la pared abdominal: una entidad poco reconocida con gran impacto en la práctica médica**

## **Chronic Abdominal Wall pain: An unrecognized entity with great impact in the clinical practice**

William Otero, MD,<sup>1</sup> Xiomara Ruiz, MD,<sup>2</sup> Elder Otero, MD,<sup>3</sup> Martín Gómez, MD,<sup>4</sup>  
Luis Fernando Pineda, MD,<sup>5</sup> Víctor Arbeláez, MD.<sup>5</sup>

**Trabajo ganador del Premio Nacional de Gastroenterología “Jacome Valderrama” 2007**

**48%**

# Resultados

n=189

**DACP: 91 (48%)**

Edad: 49 +/-15 años, 90% mujeres

Evolución: 36 +/- 5.5 meses

**(1 mes a 25 años)**

➤ 2 años: 36 pts (39.5%)

68% alteraciones del sueño

Consultas previas: 1168

# Diagnósticos previos

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<b>“Gastritis crónica”</b>	<b>50 (55%)</b>
<b>“Colon irritable”</b>	<b>30 (33%)</b>
<b>“Enfermedad sicológica”</b>	<b>15 (16.4%)</b>
<b>“Divertículos”</b>	<b>5 (5.5%)</b>
<b>Otras:</b>	
<b>Infección urinaria, ovarios, etc.</b>	

## Medicamentos

**Analgésicos 100% (acetaminofén, AINES, Hioscina)**

**IBP: 88%, Ranitidina 55%**

**Amitriptilina: 5.5%**

# Exámenes previos

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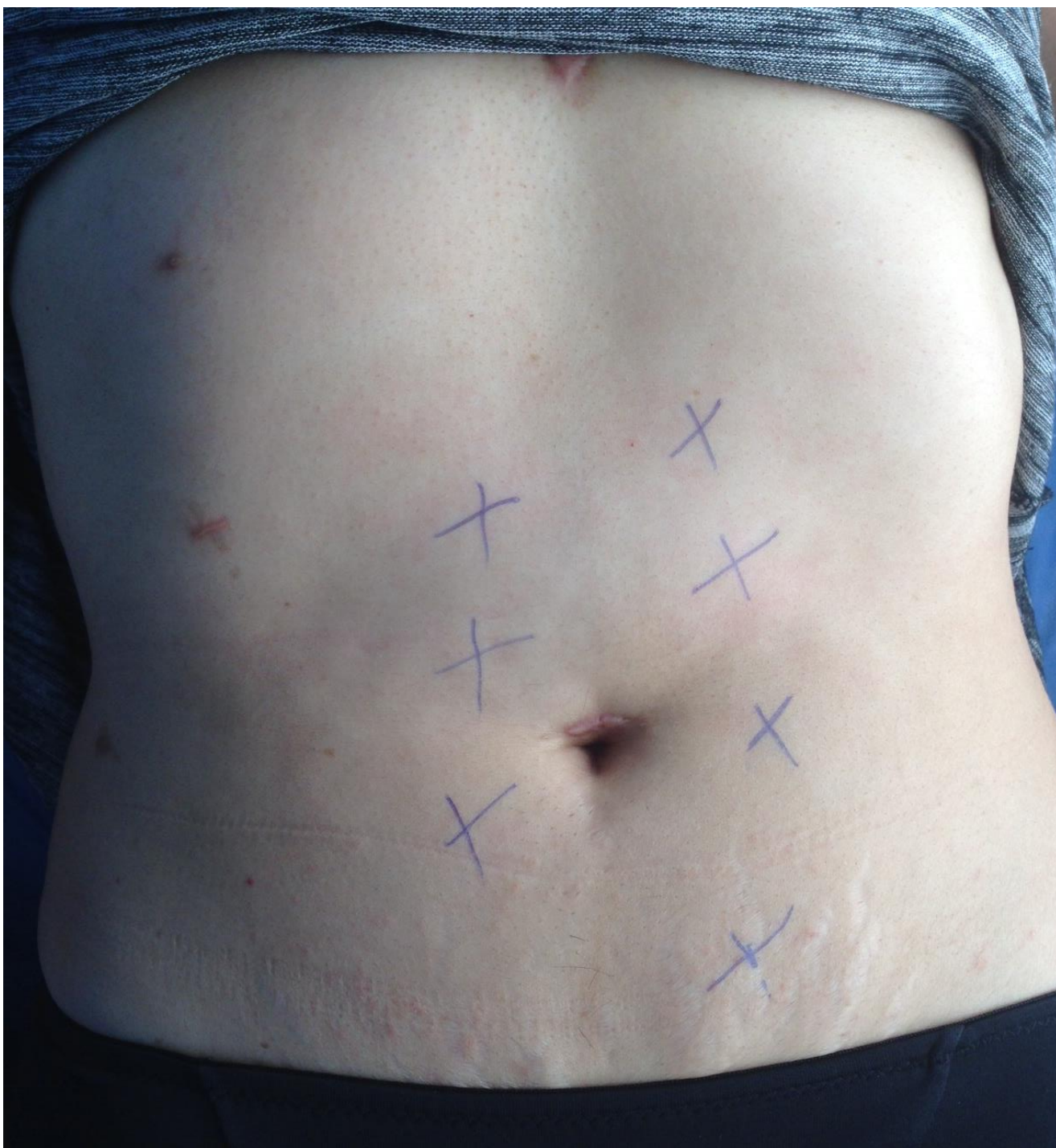
<b>EVDA:</b>	<b>124 (2.5/paciente)</b>
<b>Colonoscopias</b>	<b>36</b>
<b>Colon por enema</b>	<b>4</b>
<b>TAC</b>	<b>4</b>
<b>Ecografía abdominal</b>	<b>107</b>
<b>Laparoscopia</b>	<b>3</b>
<b>Total</b>	<b>207 procedimientos</b>
<b>Hospitalizacion</b>	<b>14 Pacientes (23%)</b>
	<b>107 días</b>
	<b>8 días (1 a 30 días)</b>

# Carnett A



# Carnett B

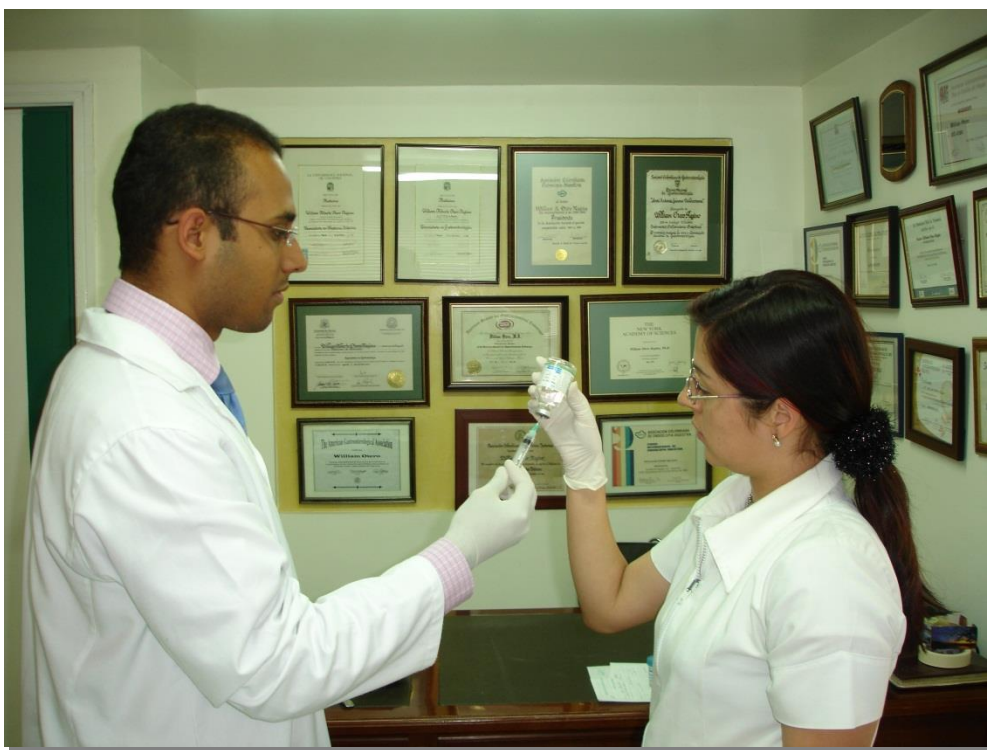






# “Kit” de Infiltración







# Resultados



**n=91**



**Inyección local 1-2 ml por punto**

# Intensidad del Dolor

<b>Severo</b>	<b>61 (67%)</b>
<b>Moderado</b>	<b>27 (30%)</b>
<b>Leve</b>	<b>3 (3.3)</b>
<b>Promedio:</b>	<b>8 +/- 2 puntos// 10</b>

## Respuesta del dolor a la infiltración

<b>Desaparición</b>	<b>76 (83.5%) IC 95% 83 a 96%</b>
<b>Mejoría</b>	<b>7 (7.7%) IC 95% 3 a 15%</b>
<b>No modificación</b>	<b>8 (8.8%) IC 95% 4-18%</b>

**Favorable: 91.2%**

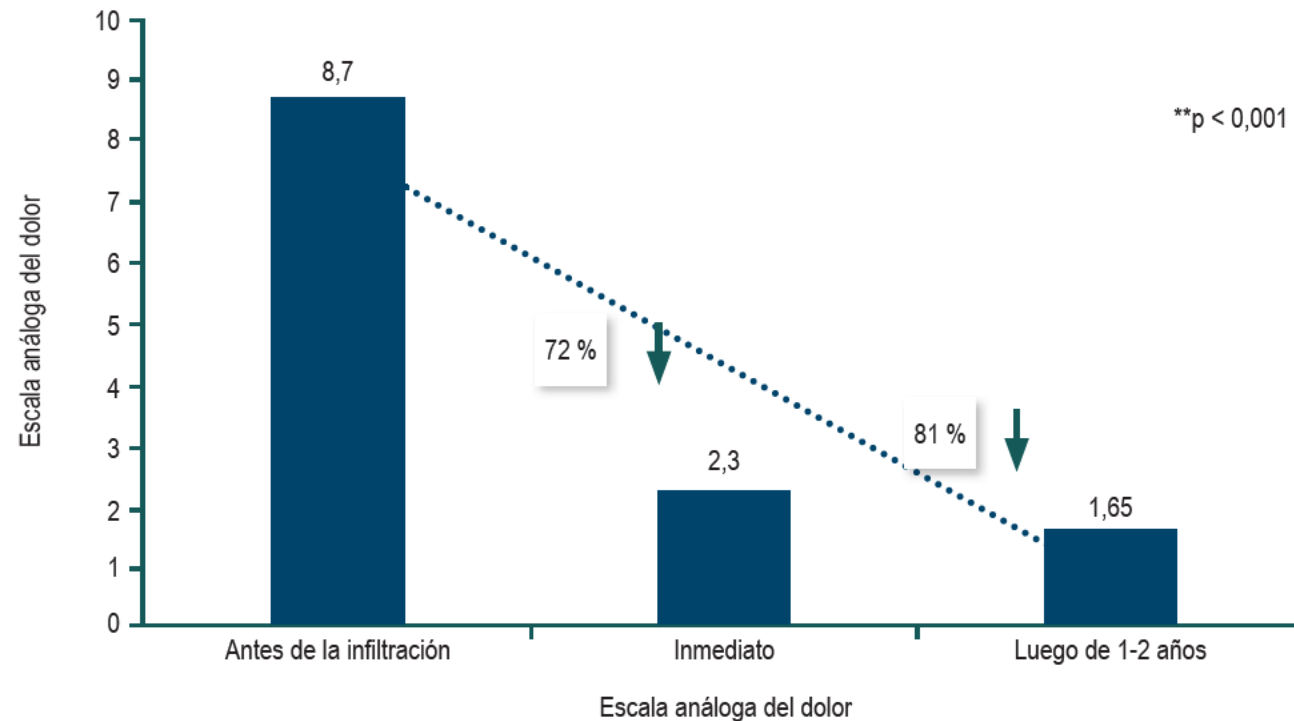
# Evaluación de la respuesta sostenida en pacientes con dolor crónico de la pared abdominal tratados con infiltración de anestesia local

Evaluation of sustained responses to infiltration of local anesthetic in patients with chronic abdominal wall pain

Julián Mayorga-Ortiz, MD,<sup>1</sup> William Otero-Regino, MD,<sup>2\*</sup> Juan Alzate-Granados, MD,<sup>3</sup> Hernando Marulanda Fernández, MD.<sup>4</sup>

## Respuesta inmediata hasta dos años pos infiltración

**N=324**



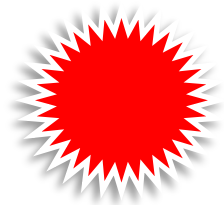
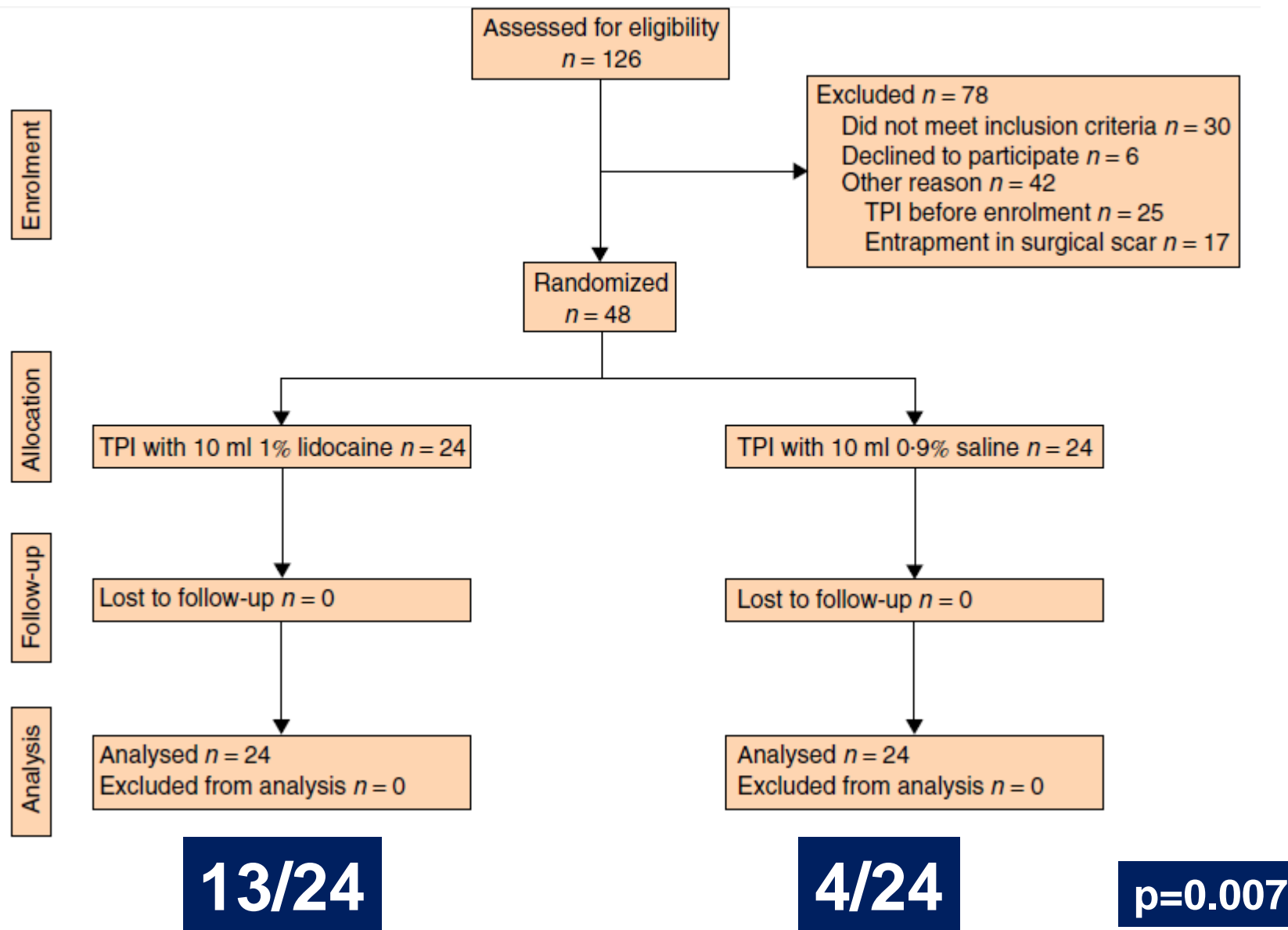
Randomized clinical trial

# Randomized clinical trial of trigger point infiltration with lidocaine to diagnose anterior cutaneous nerve entrapment syndrome


O. B. A. Boelens<sup>1</sup>, M. R. Scheltinga<sup>1</sup>, S. Houterman<sup>2</sup> and R. M. Roumen<sup>1</sup>

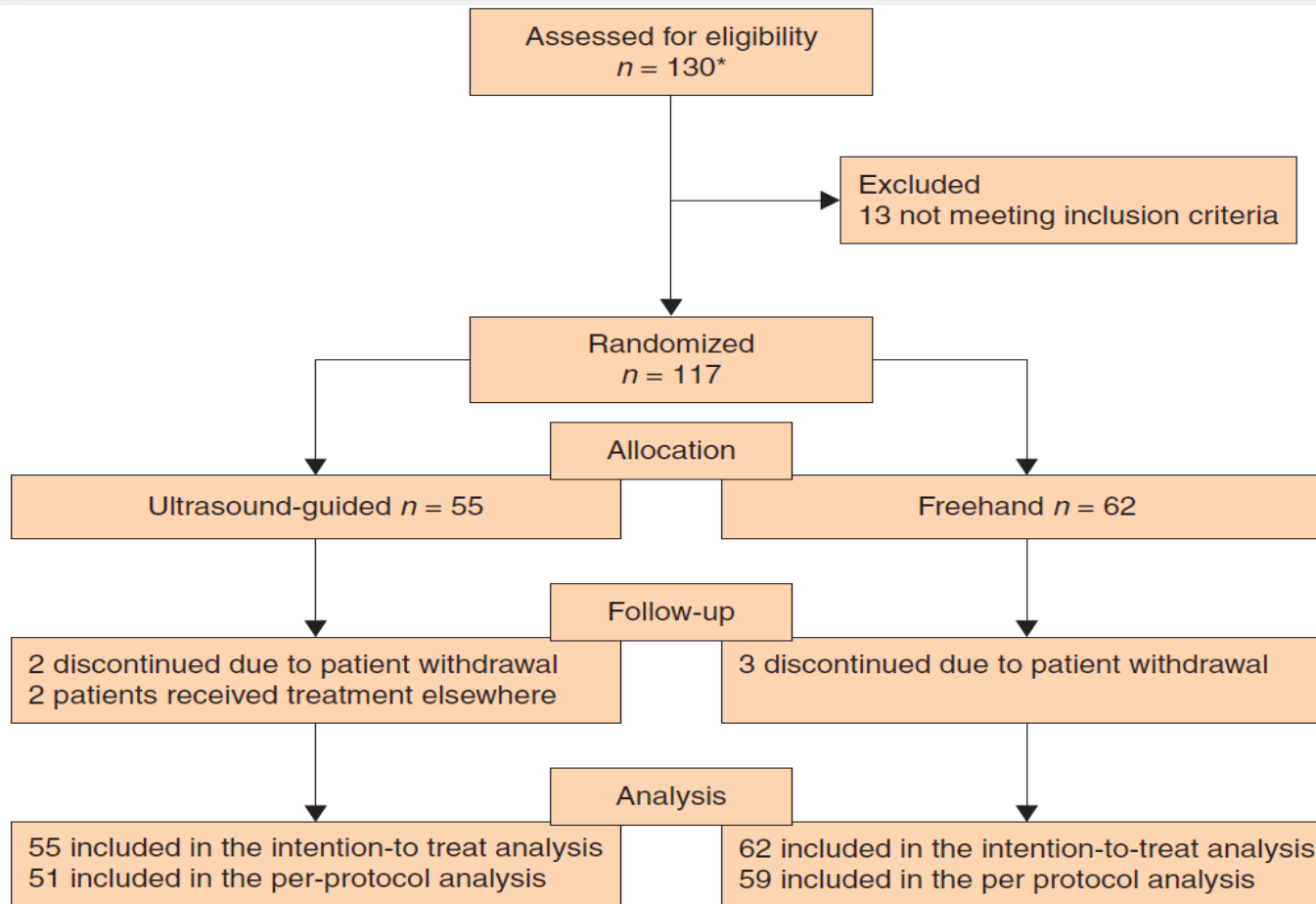
<sup>1</sup>Department of Surgery and <sup>2</sup>Máxima Medical Centre Academy, Máxima Medical Centre, Veldhoven, The Netherlands  
*Correspondence to:* Mr O. B. A. Boelens, Department of Surgery, Máxima Medical Centre, de Run 4600, PO Box 7777, 5500 MB Veldhoven, The Netherlands (e-mail: o.boelens@gmail.com)

Boelens OBA,et al. Br J Surg 2013;100:217-21

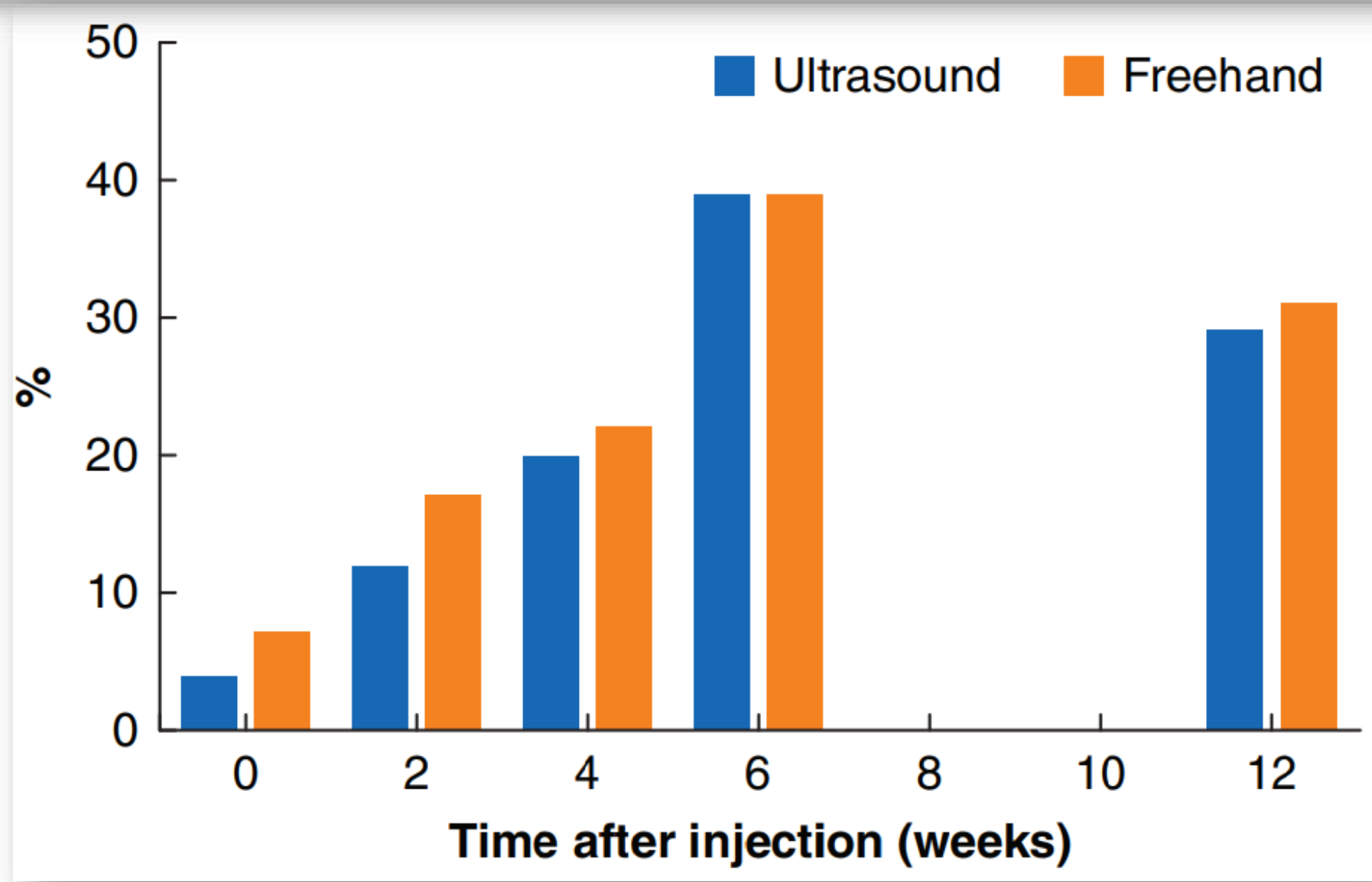


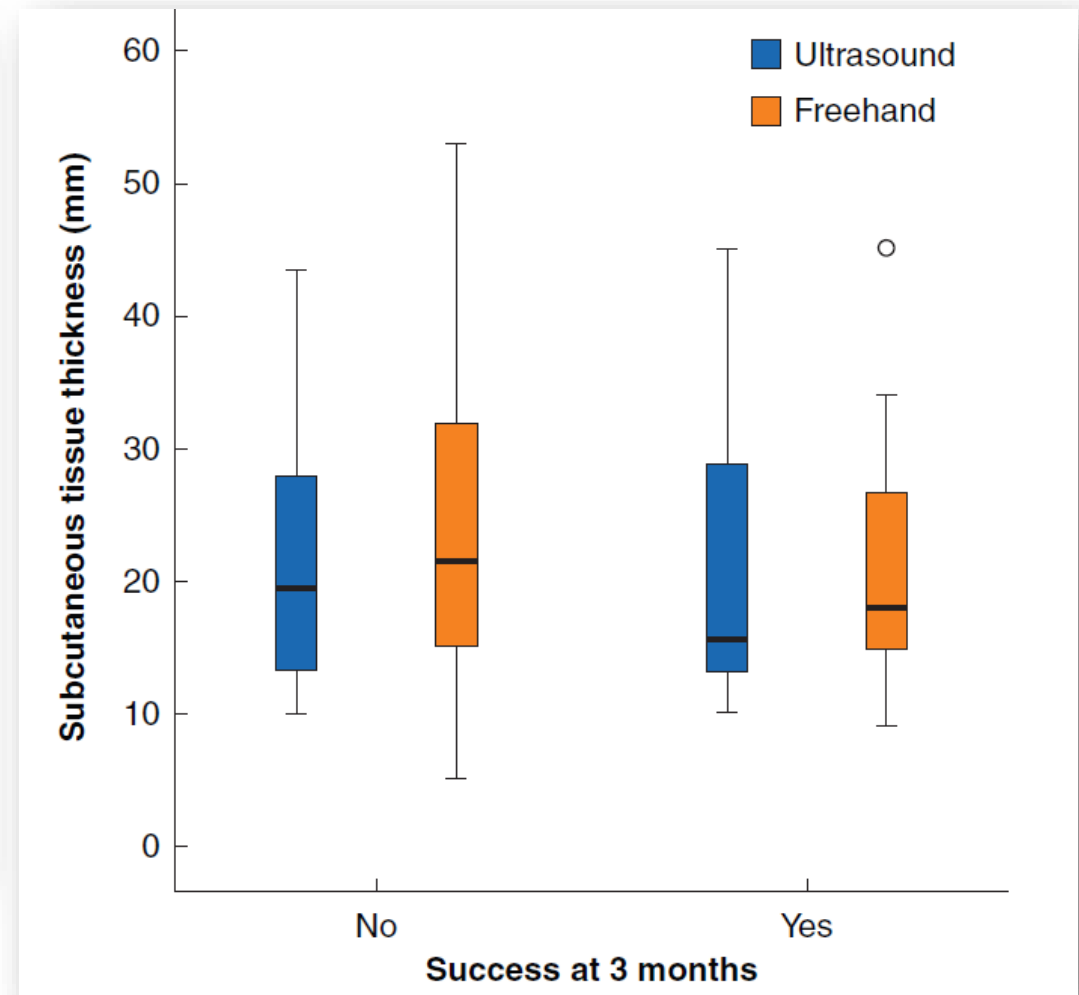
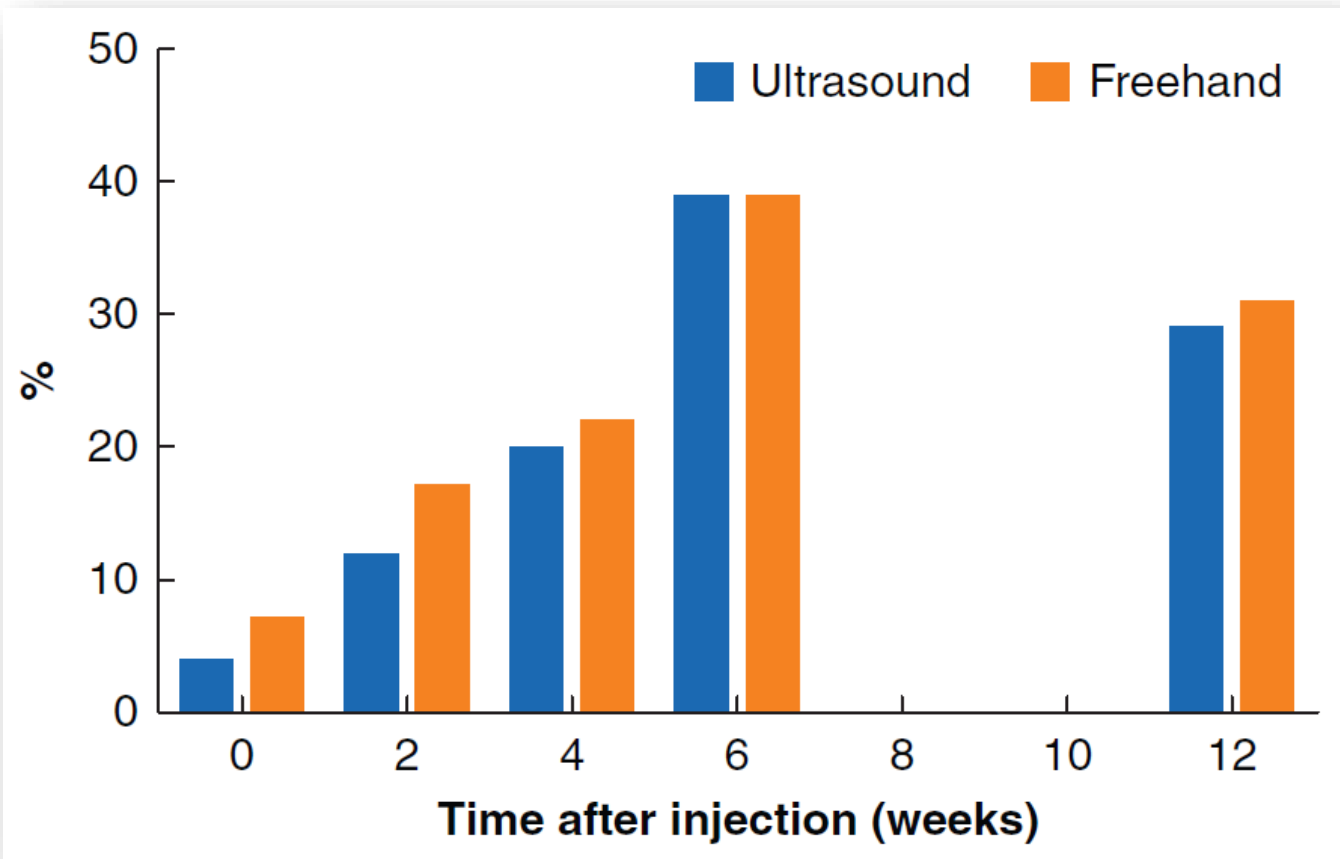
# Ultrasound-guided abdominal wall infiltration *versus* freehand technique in anterior cutaneous nerve entrapment syndrome (ACNES): randomized clinical trial

Monica L.Y.E. Jacobs <sup>1,2,\*</sup>, Rosanne van den Dungen-Roelofsen<sup>2</sup>, Jeroen Heemskerk<sup>3</sup>, Marc R. M. Scheltinga<sup>1,2</sup> and Rudi M. H. Roumen<sup>1,2</sup>



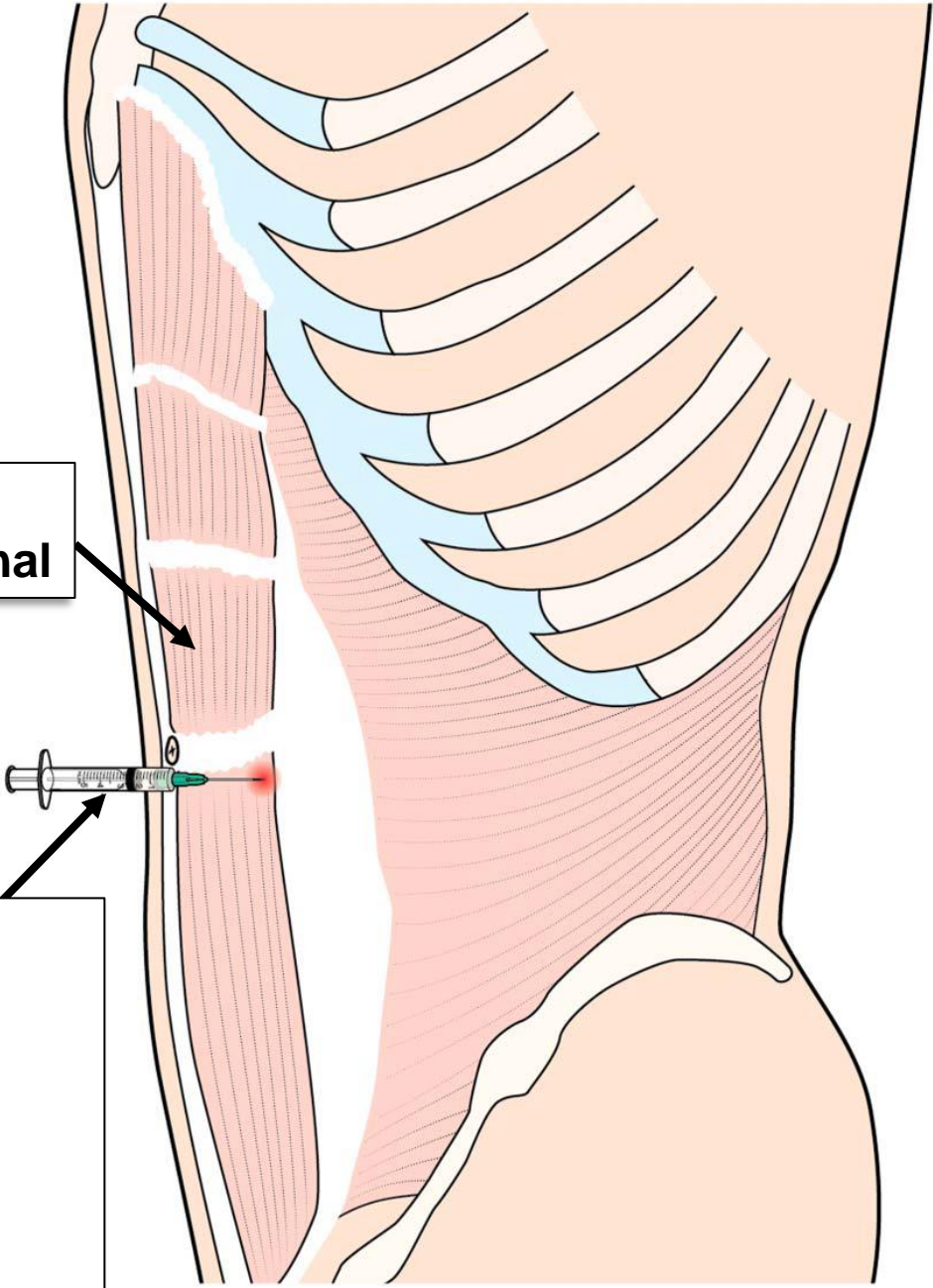
**Fig. 2** Cumulative percentage of patients experiencing a persistent  $\geq 50$  per cent pain reduction after 1–4 abdominal wall infiltrations





**Recto  
Abdominal**

**Jeringa 5 cc, Aguja 21 G,  
Tamaño variable  
4 ml Lidocaina1% +  
40 mg Triamcinolona (1ml)  
Inyecta 1 ml mezcla en cada  
punto**



# A Stick and a Burn: Our Approach to Abdominal Wall Pain

Manish Singla, MD, FACP<sup>1,2</sup> and Jeffrey T. Laczek, MD, FACP<sup>1,2</sup>

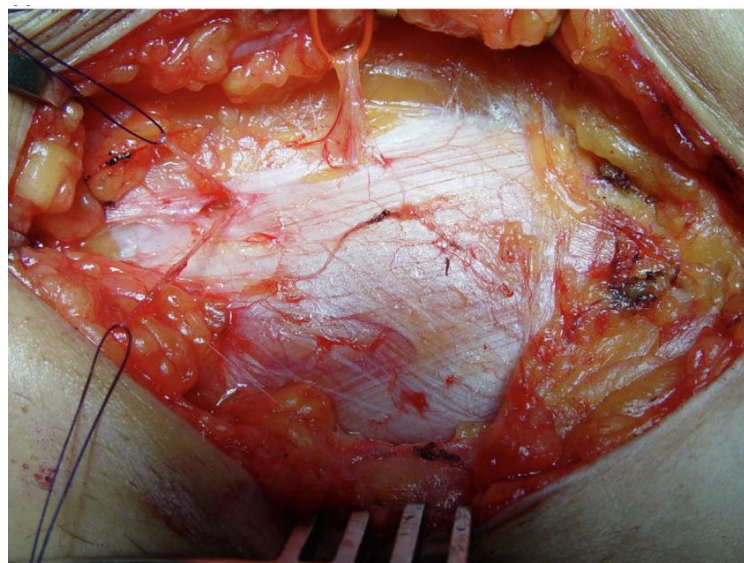
1. Mix 4 mL of 1% lidocaine with 40 mg (1 mL) of triamcinolone in a 5 mL syringe. Attach to a narrow-caliber (21 gauge or less) 5/8" or 1" needle.
2. Mark the site of the patient's pain on the abdominal wall and prep with chlorhexidine.
3. Insert the needle perpendicular to the patient's abdomen at the marked site with the goal to reach the rectus abdominis muscle; this normally requires the full length of the needle. We warn patients that they may feel a "stick" or a "sting" sensation.
4. Once the tip of the needle is at the point of maximal tenderness, inject 1 mL of the mixture. Before injection, warn patients that they may feel a "burning" sensation.
5. Withdraw the needle from the skin, redirect upward at a 45° angle, and reinsert the needle to a maximal depth; inject an additional 1 mL of mixture.
6. Repeat step 5 with the needle directed to the left, downward, and right, each at a 45° angle, and then remove the needle while applying pressure with sterile gauze.
7. Gently massage the injection site and apply a bandage if needed for hemostasis.

**SinglaM, Am J Gastroenterol 2020;115:645–647.**

# Factors predicting outcome after anterior neurectomy in patients with chronic abdominal pain due to anterior cutaneous nerve entrapment syndrome (ACNES)

Frederique M.U. Mol, MD<sup>a,b,\*</sup>, Claire H. Jansen, MD<sup>a,b</sup>, William van Dijk, MD<sup>a,b</sup>, Percy van Eerten, MD<sup>a,b</sup>, Mark R. Scheltinga, MD<sup>a,b</sup>, Rudi M. Roumen, MD<sup>a,b</sup>

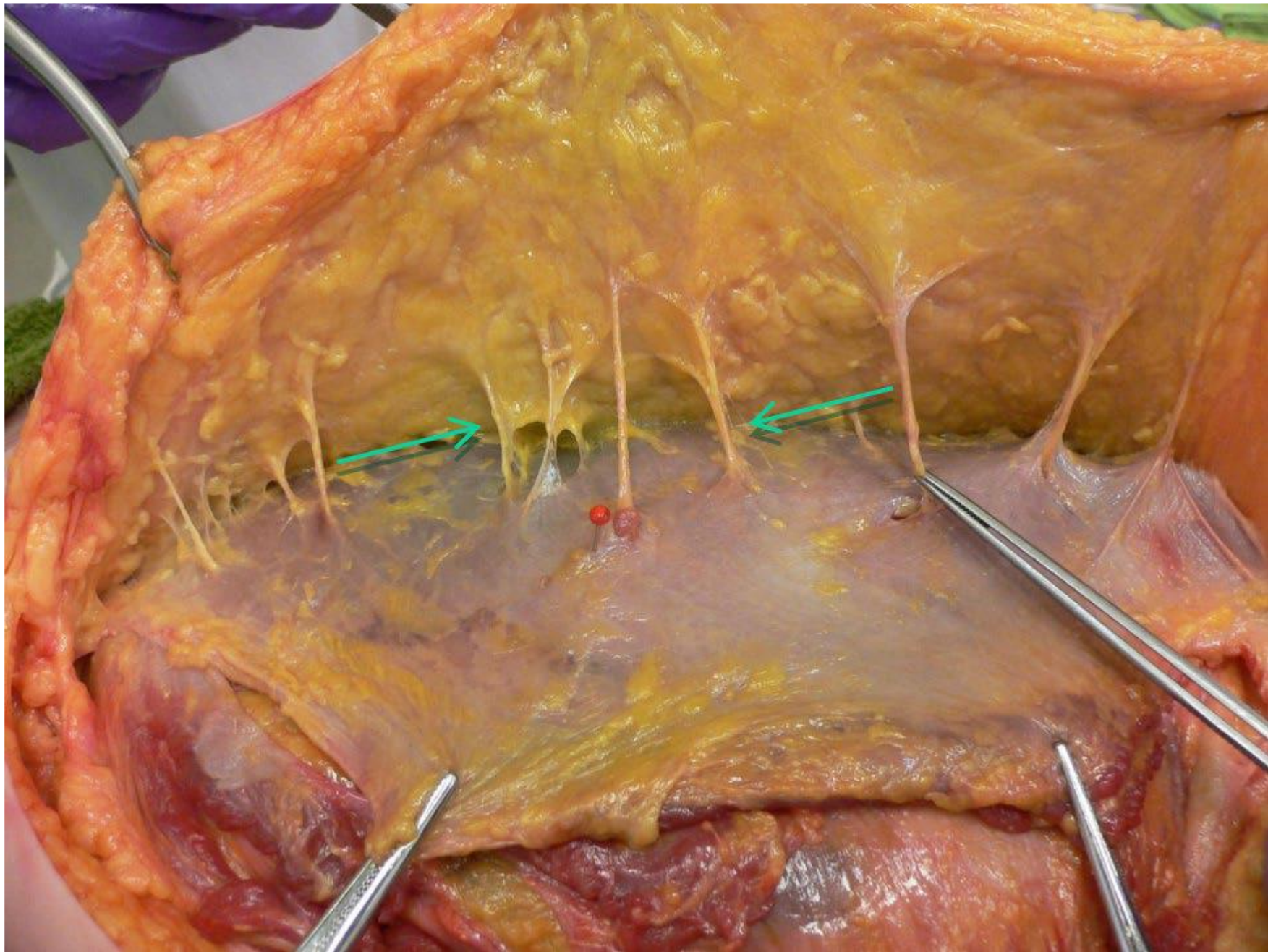
## 495 pacientes 78% mujeres



Factors associated with failure of an anterior neurectomy in ACNES patients; dermatome level was removed from multivariate analysis ( $P = .47$ ).

	B (SE) [P value]	Odds	CI 95%
Constant	-2.51(0.30)		
Pain medication use	0.61(0.28)[.027]	1.84	1.07–3.17
Abdominal surgery in the past	0.62(0.28)[.026]	1.85	1.08–3.18
Paravertebral trigger points	0.95(0.32)[.003]	2.58	1.39–4.80
Effect diagnostic rectus block	1.32(0.33)[.000]	3.74	3.74–7.10

$R^2 = 0.086$  (Cox & Snell);  $0.135$  (Nagelkerke); Model  $X^2$  34.14  $P < 0.001$ .  
SE, standard error





# Pulsed radiofrequency or anterior neurectomy for anterior cutaneous nerve entrapment syndrome (ACNES) (the PULSE trial): study protocol of a randomized controlled trial

Robbert C. Maatman<sup>1,2\*</sup>, Monique A. H. Steegers<sup>3</sup>, Oliver B. A. Boelens<sup>4</sup>, Toine C. Lim<sup>5</sup>, Hans J. van den Berg<sup>5</sup>, Sandra A. S. van den Heuvel<sup>3</sup>, Marc R. M. Scheltinga<sup>1,2</sup> and Rudi M. H. Roumen<sup>1,2</sup>



**Se esperan los resultados**

# **Dolor crónico de la pared abdominal**

## **Experiencias en pediatría**



# PEDIATRICS<sup>®</sup>

OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

## Chronic Abdominal Pain in Children

*Pediatrics* 2005;115;e370

DOI: 10.1542/peds.2004-2523

**TABLE 1.** Currently Used Definitions to Describe Childhood Abdominal Pain

Recurrent abdominal pain as defined by Apley and Naish <sup>8</sup> RAP	≥3 episodes of abdominal pain, over a period of ≥3 mo, severe enough to affect activities A common abbreviation for recurrent abdominal pain that has been used in the literature to depict recurrent abdominal pain as defined by Apley and Naish; many physicians incorrectly use this term to imply functional abdominal pain
Chronic abdominal pain	Abdominal pain with a minimum duration of 3 mo; some clinicians believe that pain lasting >1–2 mo is chronic
Rome II criteria for abdominal pain	Abdominal pain for at least 12 wk, which need not be consecutive, in the preceding 12 mo; these criteria apply to IBS, functional dyspepsia, and functional abdominal pain
Functional abdominal pain	Abdominal pain that occurs in the absence of anatomic abnormality, inflammation, or tissue damage
Nonorganic abdominal pain	A term that is often used interchangeably with functional abdominal pain
Psychogenic abdominal pain	A term that is often used interchangeably with functional abdominal pain

**Dolor de la pared abdominal no está incluido**

## Anterior cutaneous nerve entrapment syndrome (ACNES): the forgotten diagnosis

Samira Akhnikh · Niels de Korte · Peter de Winter

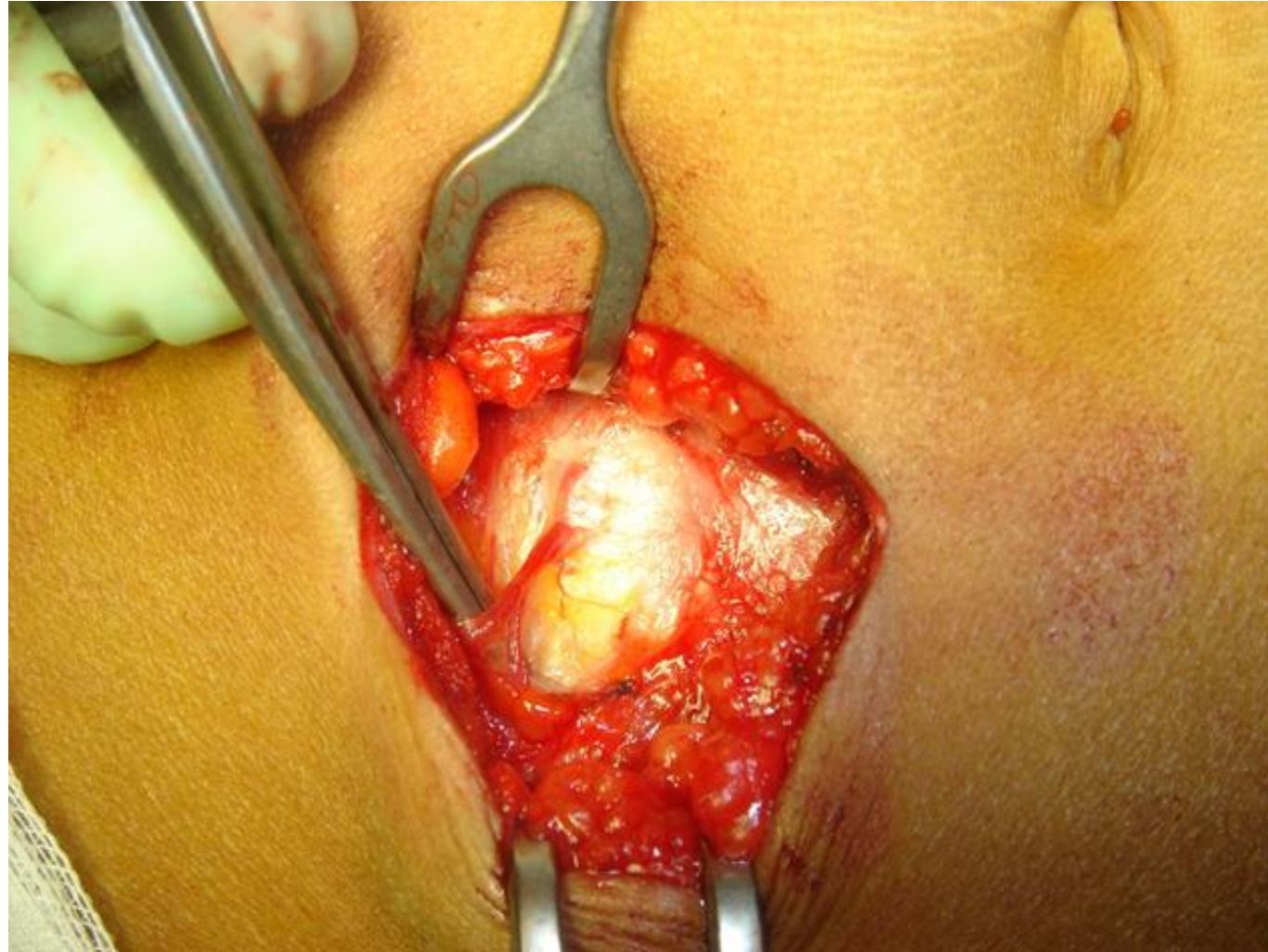
Anterior cutaneous nerve entrapment syndrome (ACNES) is an often overlooked cause of (chronic) abdominal pain. This was first recognized by Carnett and Bates in his seminal article in 1926 [7]. However, nowadays, many physicians are still unaware of this diagnosis. The literature on prevalence of ACNES in the pediatric population is very scarce. Only recently, ACNES has been described in children (Table 1) [12, 15, 17, 18]. Abdominal pain can be classified as visceral pain

**Table 1** Overview of all articles related to ACNES in children

Reference number	[12] 2008	[15] 1999	[17] 2011	[18] 2007	Current study
Number of patients	1	1	8	7	3
Age	11	15	9–16	11–16	10–16
Duration of abdominal pain	3.5 months	3 months	Unknown	4 days–5 months	1 week–4 months
Relapse	0	0	All	3	0
Number of injections in relapsed patients	1	1	At least two	2–3	1
Sex	Female	Female	All females	All females	All females

# Surgery for refractory anterior cutaneous nerve entrapment syndrome (ACNES) in children

Marc R. Scheltinga<sup>a,\*</sup>, Oliver B. Boelens<sup>a</sup>, Walther E. Tjon A Ten<sup>b</sup>, Rudi M. Roumen<sup>a</sup>



**N=6**

# Dolor de pared abdominal en niños, Enero 2008-agosto 2021

## Clínica Fundadores, Centro de Gastroenterología

<b>N= 29 niños</b>	<b>Valores</b>
Edad	9-14 (11)
Mujeres	12
<b>Evolución</b>	<b>8–120 días (28.5)</b>
<b>Analgésicos:</b> Acetaminofen, Tramadol, Hioscina	17
<b>AINES</b>	18
Hospitalización	12
Laparoscopia	5

Otero W, Manuscrito en preparación 2022

# Diagnósticos previos

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*“Colon irritable”*

*“Gastritis”*

**Dolor Funcional**

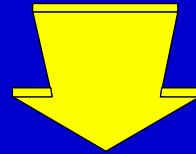
**Alergia alimenticia**

***Adenitis mesentérica***

**Dolor sicógeno**

**Ansiedad**

# **Atrapamiento del cutáneo anterior Un diagnóstico olvidado**



**Solo 4% de especialistas  
lo piensan y lo buscan !**

\*Constanza CD, Clin Gastroenterol Hepatol 2004;2:1812-6  
Rivero M, Gastroenterol Hepatol 2007;28:244-50

# **Mensajes para la casa**

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**El dolor abdominal crónico tiene muchas causas**  
**Es necesario excelente historia clínica**  
**Siempre examinar y buscar el signo de Carnett**  
**En "semiología básica" enseñar digno de Carnett**  
**La inyección local con lidocaina evita \$millones**  
**Inyección lidocaina costoefectivo en medicina**

**El paciente tiene lo que el  
médico sabe!!**

***Muchas gracias !***