Diagnóstico e tratamento da cefaléia pós-raqui: do tradicional ao vanguardismo

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DECLARAÇÃO DE CONFLITO DE INTERESSES

Aula recorrente.

De acordo com:

- Código de Ética Médica (27 de setembro de 2018).
- Resolução 466/2012 do Conselho Nacional de Saúde.
- RDC 96/2008 da Agência Nacional de Vigilância Sanitária.
- Resolução 1.595/ 2000 do Conselho Federal de Medicina.

CURRENT OPINION

Postdural puncture headache: a headache for the patient and a headache for the anesthesiologist

Robert R. Gaiser

14% das reclamações obstétricas no ASA Closed Claims.

SEMINARS IN PERINATOLOGY 38 (2014) 386–394

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Available online at www.sciencedirect.com

ScienceDirect

www.elsevier.com/locate/semperi

Post-dural puncture headache: The worst common complication in obstetric anesthesia

*Adam Sachs, MD, and Richard Smiley, MD, PhD**

Columbia University College of Physicians and Surgeons, 630 W 168th St PH5, New York, NY 10032

2018

IHS CLASSIFICATION ICHD-3

- Cefaléia que incide até 5 dias de uma punção dural.
- 7.2 Cefaléia por baixa pressão de LCR
- Outros diagnósticos são improváveis.

7.2 Cefaleia P-LCR Baixo

IHS CLASSIFICATION ICHD-3

- Incidência ~ baixa p-LCR
- B:
  - p-LCR <60mm CSF ou
  - TC/RNM
- Outros Dx improváveis

IHS ICHD-2 vs ICHD-3

Retirada de critérios diagnósticos

- Saiu piora/melhora levantar/deitar;
- Sairam sintomas (náusea, tinido..)
- Saiu melhora espontanea 1sem ou até 48h pós tampão

IHS ICHD-2 vs ICHD-3

IHS CLASSIFICATION ICHD-3

- ICHD-3 Mais sensível
- ICHD-2 Mais específica

Controvérsia

Modelo diagnóstico?

Teorema de Bayes:
p(CPPD-final) =
p(cppd.priori).p(LR)/p(evidencia)

Modelo diagnóstico?

p(Dx-CPPD) ~
p(cppd|epidemiologia) x
p(cppd|sintomas)

Epidemiologia - CPPD

Menos comum:

- Idade>60
- Homens;
- Obesos;
- Punções sangrantes;
- Tabagistas.

Cigarette smokers have reduced risk for post-dural puncture headache.PMID:23340541

Epidemiologia - CPPD

Mais comum:

- Idade<40
- Mulheres;
- Parto vaginal;
- CPR prévia / enxaqueca;
- Agulha peridural.

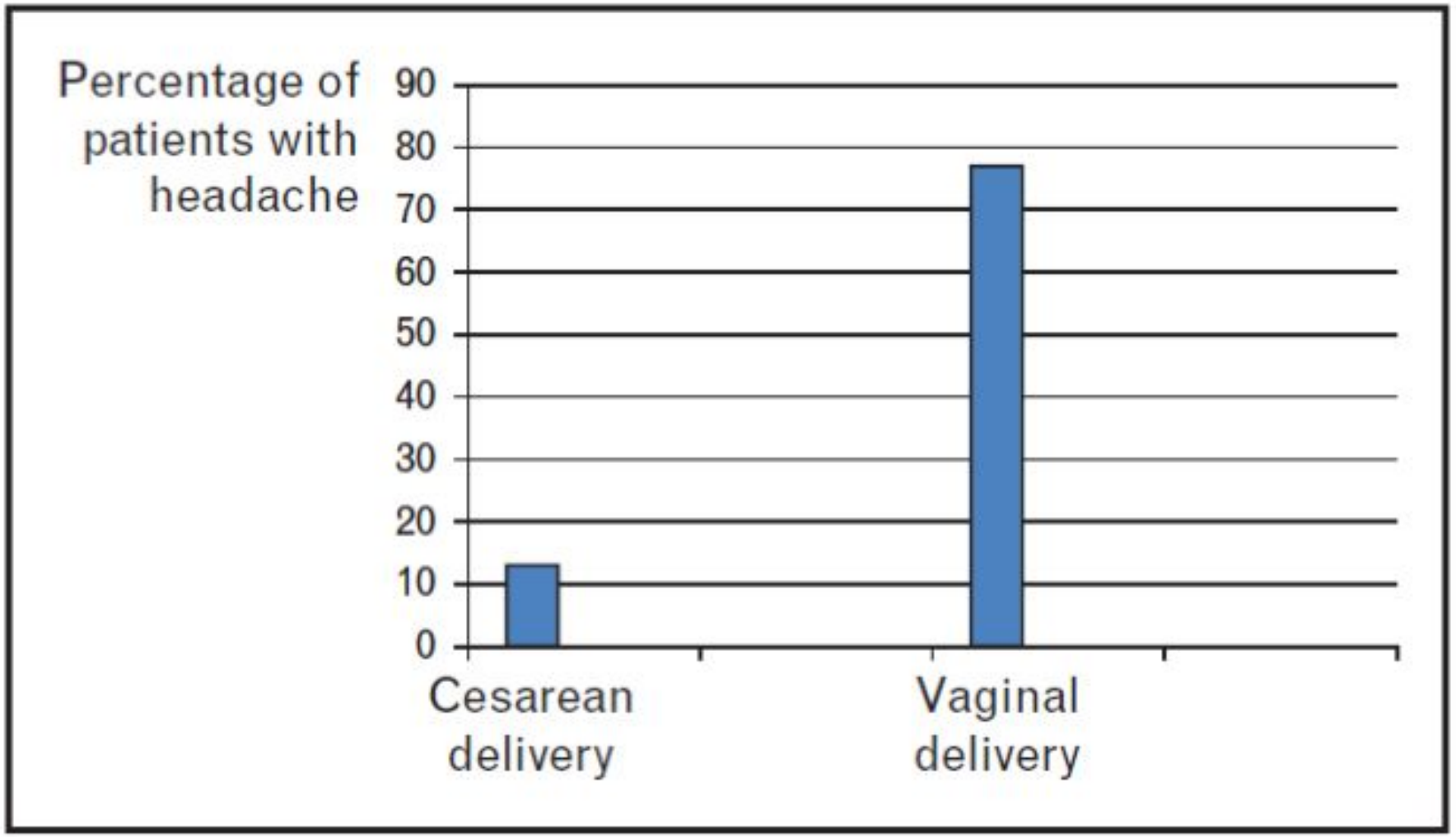

FIGURE 1. Percentage of patients who develop a postdural puncture headache following unintentional dural puncture. Data from [14,17].

Epidemiologia - CPPD

- Agulhas mais finas: menor incidência
- Ponta de lápis: menor incidência

Needle Design	Gauge	n/N	Frequency of PDPH (%)*	95% Confidence Interval†
Quincke	24	15/238	11.2	10.2-12.2[39,43]
	25	114/1792	6.4	5.3-7.6[39,43]
	26	139/2467	5.6	5.6-5.7[39]
	27	34/1167	2.9	2.0-4.0[39,43]
Atraucan	26	16/350	4.6	2.6-7.3[40-42]
Whitacre	22	1/68	1.5	1.2-2.8[39]
	25	137/6992	2.0	1.6-2.3[39-41,43]
	27	13/820	1.6	0.08-2.7[39,43]
Sprotte	24	57/1767	3.5	3.5-3.5[39]
Polymedic	25	22/292	6.6	5.9-7.4[39]
BD	26	205/2560	5.8	5.6-5.9[39]
Gertie Marx	24	8/201	4.0	1.7-7.7[42]

Needle			Frequency of PDPH	95% Confidence

European Journal of Neurology 2014, **21:** 305–311 doi:10.1111/ene.12307

Change practice now! Using atraumatic needles to prevent post lumbar puncture headache

A. Davis[a,b], R. Dobson[a,b], S. Kaninia[a,b], M. Espasandin[a,b], A. Berg[a,b], G. Giovannoni[a,b] and K. Schmierer[a,b]

[a]*Blizard Institute, Barts and the London School of Medicine and Dentistry, Queen Mary University of London, London; and* [b]*Barts Health NHS Trust, The Royal London Hospital, London, UK*

	27	13/820	1.6	0.08-2.7[39,43]
Sprotte	24	57/1767	3.5	3.5-3.5[39]
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BD	26	205/2560	5.8	5.6-5.9[39]
Gertie Marx	24	8/201	4.0	1.7-7.7[42]

Needle gauge and tip designs for preventing post-dural puncture headache (PDPH) (Review)

Arevalo-Rodriguez I, Muñoz L, Godoy-Casasbuenas N, Ciapponi A, Arevalo JJ, Boogaard S, Roqué i Figuls M

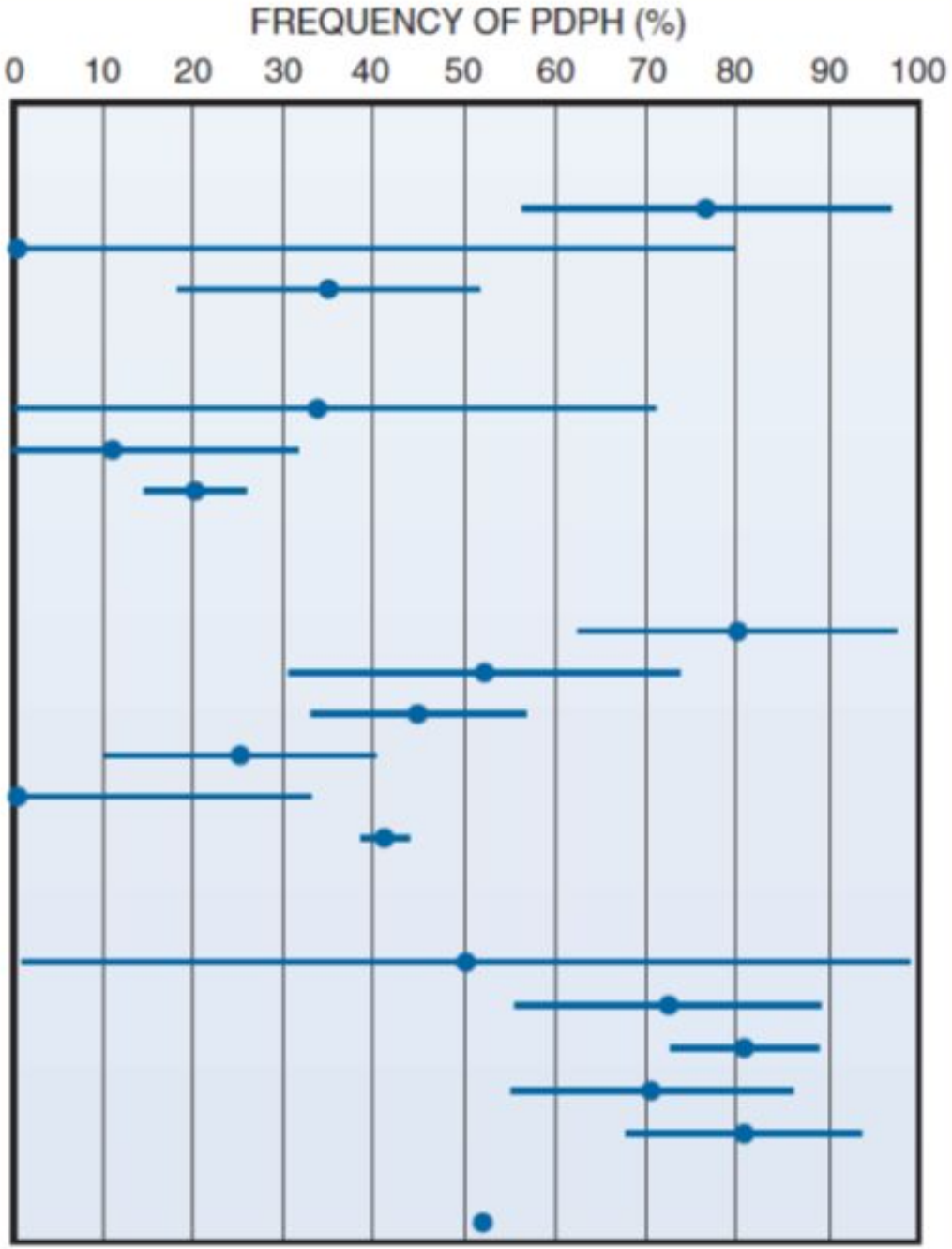
2017: 66 ECRs 17.067 pacientes

Cortante: RR 2.14 (1.72-2.6)

25 vs 27: RR 6 (2.5 - 16)

THE COCHRANE COLLABORATION®

Study (PDPH)	Number	% (95% CI)
Holdcraft 1976	13/17	
Rawal 1988	0/1	
Total Tuohy 16G	13/18	34.7(18.1–51.3)
Richardson 1999	2/6	
Richardson 1999	1/9	
Total Tuohy 18G	3/15	20.1(14.6–25.6)
Norris 1989	16/20	
Norris 1989	11/21	
Faure 1994	30/67	
Faure 1994	8/32	
Huffnagle 1998	0/8	
Total Hustead 18G	65/148	41.3(39.1–43.5)
Webb 1992	2/4	
Jaitly 1998	21/29	
Paech 2001	81/100	
Rutter 2001	24/34	
Rutter 2001	30/37	
All epidural needles	239/385	52.1(51.4–52.8)



Epidemiologia - CPPD

Fatores de risco controversos:

- Posição do bisel;
- Mediana vs paramediana;
- Remover sol. antisseptica;

Epidemiologia - CPPD

We do not recommend removal of povidone-iodine [or other solutions used for skin antisepsis] before initiating neuraxial analgesia, because povidone-iodine works by desiccating bacteria, and removing the povidone-iodine reduces its antibacterial effect. Rather, the solution should be allowed to dry on the skin.)

Clínica - CPPD

- Constante (vs episódica).
- Piora / melhora: levantar/deitar.
- Cefaleia / tinido / hipoacusia / fotofobia / náusea / pescoço rígido.
- Frontal e occipital.
- Melhora com tampão.

Posture and fluids for preventing post-dural puncture headache (Review)

Arevalo-Rodriguez I, Ciapponi A, Roqué i Figuls M, Muñoz L, Bonfill Cosp X

ECRs 2996 pacientes, risco de CPPD

Manter DDH: 26%

Mobilização: 20%

RR: 1.24 IC95% 1.04 – 1.48

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Posture and fluids for preventing post-dural puncture headache (Review)

Arevalo-Rodriguez I, Ciapponi A, Roqué i Figuls M, Muñoz L, Bonfill Cosp X

Fluidos 200 pacientes..

Não fazem diferença

THE COCHRANE COLLABORATION®

Incidence of Post-lumbar Puncture Headache is Independent of Daily Fluid Intake

Marianne Dieterich and Thomas Brandt

Neurologische Klinik, Universität München, Klinikum Großhadern, Marchioninistrasse 15, D-8000 München 70, Federal Republic of Germany

and thereby stop the continuous leakage. It is no longer justifiable to advise patients to drink more than usual since there is no physiological or empirical basis for this and it does not seem to have even a placebo effect.

Drug therapy for preventing post-dural puncture headache (Review)

Basurto Ona X, Uriona Tuma SM, Martínez García L, Solà I, Bonfill Cosp X

2015: ECRs 1611 pacientes

Morfina peridural: reduz

Aminofilina IV: reduz

Dexametasona IV: aumenta

Cafeína: apenas insônia

THE COCHRANE COLLABORATION®

Drug therapy for preventing post-dural puncture headache (Review)

Basurto Ona X, Uriona Tuma SM, Martínez García L, Solà I, Bonfill Cosp X

Gabapentina: diminui

Hidrocortisona: diminui

Teofilina: diminui

THE COCHRANE COLLABORATION®

CURRENT OPINION

Postdural puncture headache: a headache for the patient and a headache for the anesthesiologist

Robert R. Gaiser

Controverso: após perfuração acidental com Tuohy → cateter intratecal e manter 24h

Cafeína 500mg IV: UM estudo suspeito, vários negativos

Cafeína oral: <u>não funciona</u>.

CURRENT OPINION

Postdural puncture headache: a headache for the patient and a headache for the anesthesiologist

Robert R. Gaiser

Dose-resposta volume tampão:

- Ideal 20ml.
- Interromper se dorsalgia ou sintomas MMII.

CURRENT OPINION

Postdural puncture headache: a headache for the patient and a headache for the anesthesiologist

Robert R. Gaiser

- Complicações tampão peridural (**TCLE**!):
- Óbito: raro; Falha: 5%-20%;
- Dorsalgia 80%; Tinido: 3%;
- Nova punção inadvertida com Tuohy: 1,5%;
- Infecções de neuroeixo, aracnoidite: raro;
- Sensação de pressão lombar: 50%.

CURRENT OPINION

Postdural puncture headache: a headache for the patient and a headache for the anesthesiologist

Robert R. Gaiser

Recomendações:

- Visita pós-anestésica de todos;
- Acompanhar casos (mesmo leves) até alta,
- considerar telefonar depois da alta;
- Cafeína e repouso não ajudam;

CURRENT OPINION

Postdural puncture headache: a headache for the patient and a headache for the anesthesiologist

Robert R. Gaiser

Recomendações (cont.):

- Sintomas > 24h discutir riscos e benefícios do tampão peridural.
- Se punção difícil e perfuração acidental com Tuohy: cateter subaracnoide/24h.

An audit of epidural blood patch after accidental dural puncture with a Tuohy needle in obstetric patients

S. Banks, M. Paech, L. Gurrin

Department of Anaesthesia, Women and Infants Research Foundation Western Australia, King Edward Memorial Hospital for Women, Perth, WA, Australia

Table 3. Incidence of recurrent headache in relation to timing of epidural blood patch (n = 57)

Timing of blood patch	Number (%) with recurrent PDPH	Number (%) without recurrent PDPH
<48 h	13 (59)	9 (41)
>48 h	4 (11)	31 (89)

$P < 0.001$, Fisher's exact test. Data unavailable in one case.

Journal of Clinical Anesthesia (2016) 34, 154–158

ELSEVIER

Journal of Clinical Anesthesia

Original contribution

Continuous epidural pumping of saline contributes to prevent and treat postdural puncture headache☆

Xiangming Che MD*, Wenyu Zhang BS, Mingjun Xu MD

Beijing Obstetrics and Gynecology Hospital, Capital Medical University, Beijing 100006, China

Journal of Clinical Anesthesia (2016) **34**, 194–196

ELSEVIER

Journal of Clinical Anesthesia

Case Report

Transnasal sphenopalatine ganglion block for the treatment of postdural puncture headache in obstetric patients☆,☆☆,★

Sheffield Kent MD*,[1], Gregory Mehaffey MD[1]

Department of Anesthesiology, University of Arkansas for Medical Sciences, Little Rock, AR

Sphenopalatine Ganglion Block Versus Epidural Blood Patch for Post-dural Puncture Headache Treatment: Retrospective Review

Shaul Cohen, M.D., Danielle Levin, B.A., Geza K. Kiss, M.D., Scott Mellender, M.D., Rong Zhao, M.D., Preet Patel, M.D., William R. Grubb, M.D.

Rutgers - Robert Wood Johnson Medical School, New Brunswick, New Jersey, United States

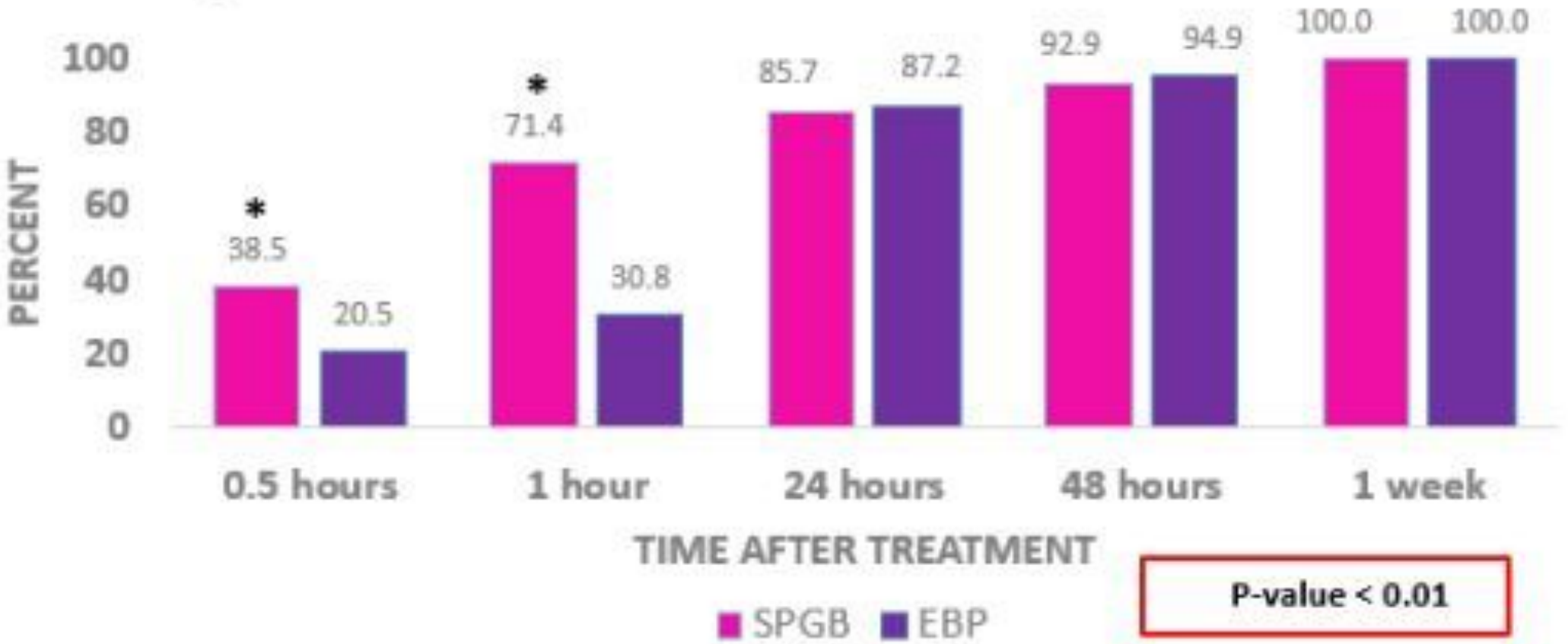
ASA 2018 Abstract

Table II: Post treatment complications

Complications	SPGB Group (N=42)	EBP Group (N=39)	P-value
Backache with radiation to lower extremities	0 (0%)	3 (7.7%)	0.11
Vasovagal reaction	0 (0%)	1 (2.6%)	0.48
Temporary hearing loss	0 (0%)	1 (2.6%)	0.48
Return to ER	0 (0%)	9 (23.1%)	0.0008

*Data is presented as the number of patients, with the percentage in parentheses. Comparisons across groups were performed using the Fisher's exact test.

Figure 1. Patients who Recovered from Headache



Original Article

Sphenopalatine ganglion block for treatment of post-dural puncture headache in obstetric patients: An observational study

Address for correspondence:
Dr. Sunil Rajan,
Department of
Anaesthesiology, Amrita

Nitu Puthenveettil, Sunil Rajan, Anish Mohan, Jerry Paul, Lakshmi Kumar

Department of Anaesthesiology and Critical Care, Amrita Institute of Medical Sciences, Amrita Vishwa Vidyapeetham, Kochi, Kerala, India

How to cite this article: Puthenveettil N, Rajan S, Mohan A, Paul J, Kumar L. Sphenopalatine ganglion block for treatment of post-dural puncture headache in obstetric patients: An observational study. Indian J Anaesth 2018;62:972-7.

Original Article

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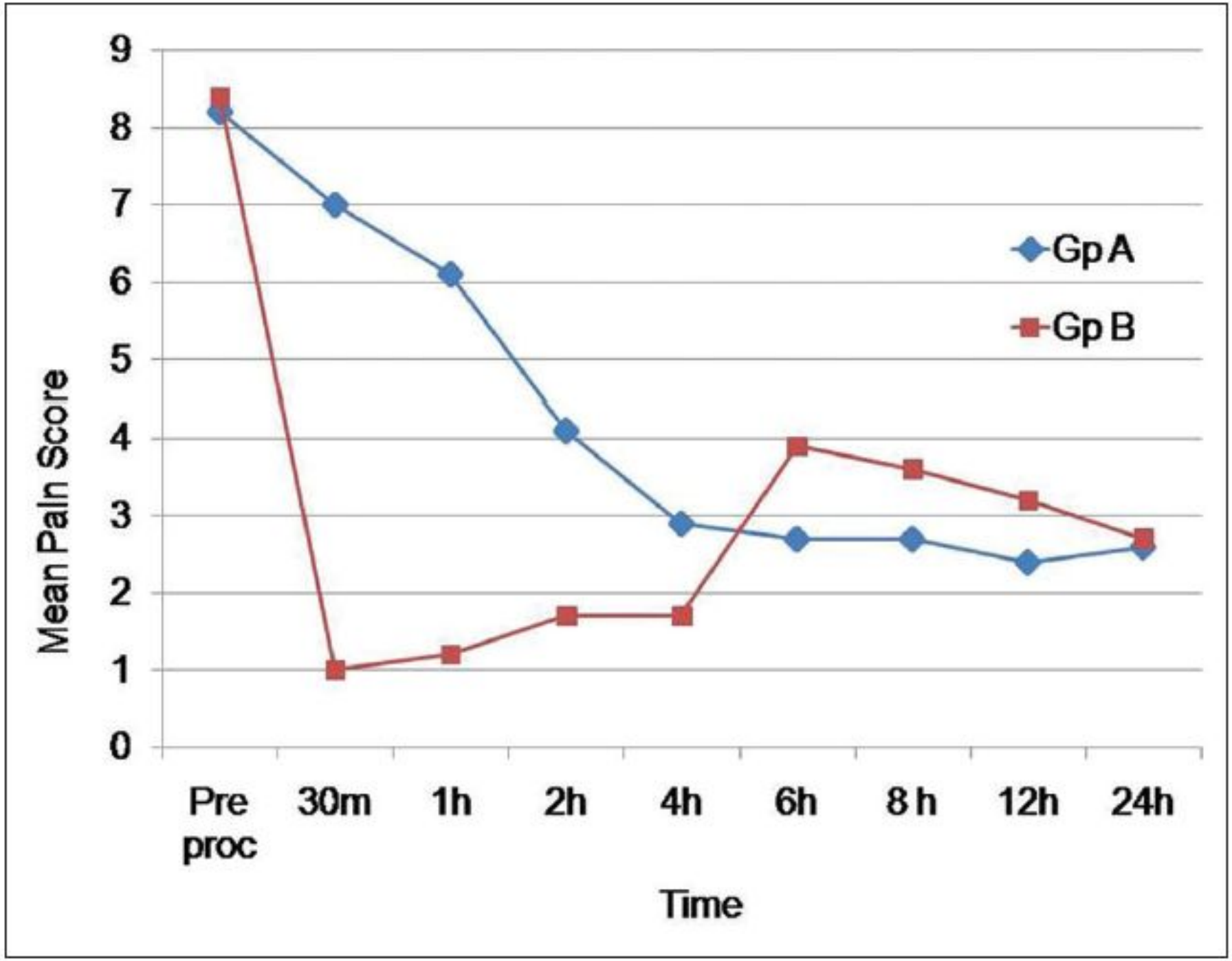

ASA Annual Meeting

Can We Offer Spheno-Palatine Ganglion Block for Our Obstetric Patients Following Accidental Dural Puncture?

Cohen, Shaul MD; Ramos, Daniel BS; Grubb, William DDS, MD; Mellender, Scott MD; Mohiuddin, Adil MD; Chiricolo, Antonio MD

37% precisaram repetir o bloqueio

37% falha → tampão peridural

Clinical Research Report

Journal of INTERNATIONAL MEDICAL RESEARCH

Journal of International Medical Research
2019, Vol. 47(1) 420–426

DOI: 10.1177/0300060518803231
journals.sagepub.com/home/imr

SAGE

Effect of pre-administration with aminophylline on the occurrence of post-dural puncture headache in women undergoing caesarean section by combined spinal-epidural anaesthesia

Chao-Jie Yang[1], Tao Chen[2], Xin Ni[3], Wan-You Yu[4] and Wei Wang[4]

Clinical Research Report

Journal of INTERNATIONAL MEDICAL RESEARCH

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2019, Vol. 47(1) 420-426

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SAGE

Effect of pre-administration with aminophylline on the occurrence of post-dural puncture headache in women undergoing caesarean section by combined spinal-epidural anaesthesia

Chao-Jie
Wan-You

Table 2. Frequency of post-dural puncture headache in patients ($n = 117$) undergoing combined spinal-epidural anaesthesia during elective caesarean section who were enrolled in a randomized, double-blind, controlled study of the effects of aminophylline on post-dural puncture headache.

		Days after the caesarean section							Total
Group	*n*	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	*n* (%)
Group A	59	1	1	0	0	0	0	0	2 (3.4%)[a]
Group C	58	4	5	1	0	0	0	0	10 (17.2%)

Data presented as *n* of patients (%).
[a]$P < 0.001$, compared with group C; χ^2-test, Kruskal–Wallis test.

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Chao-Jie
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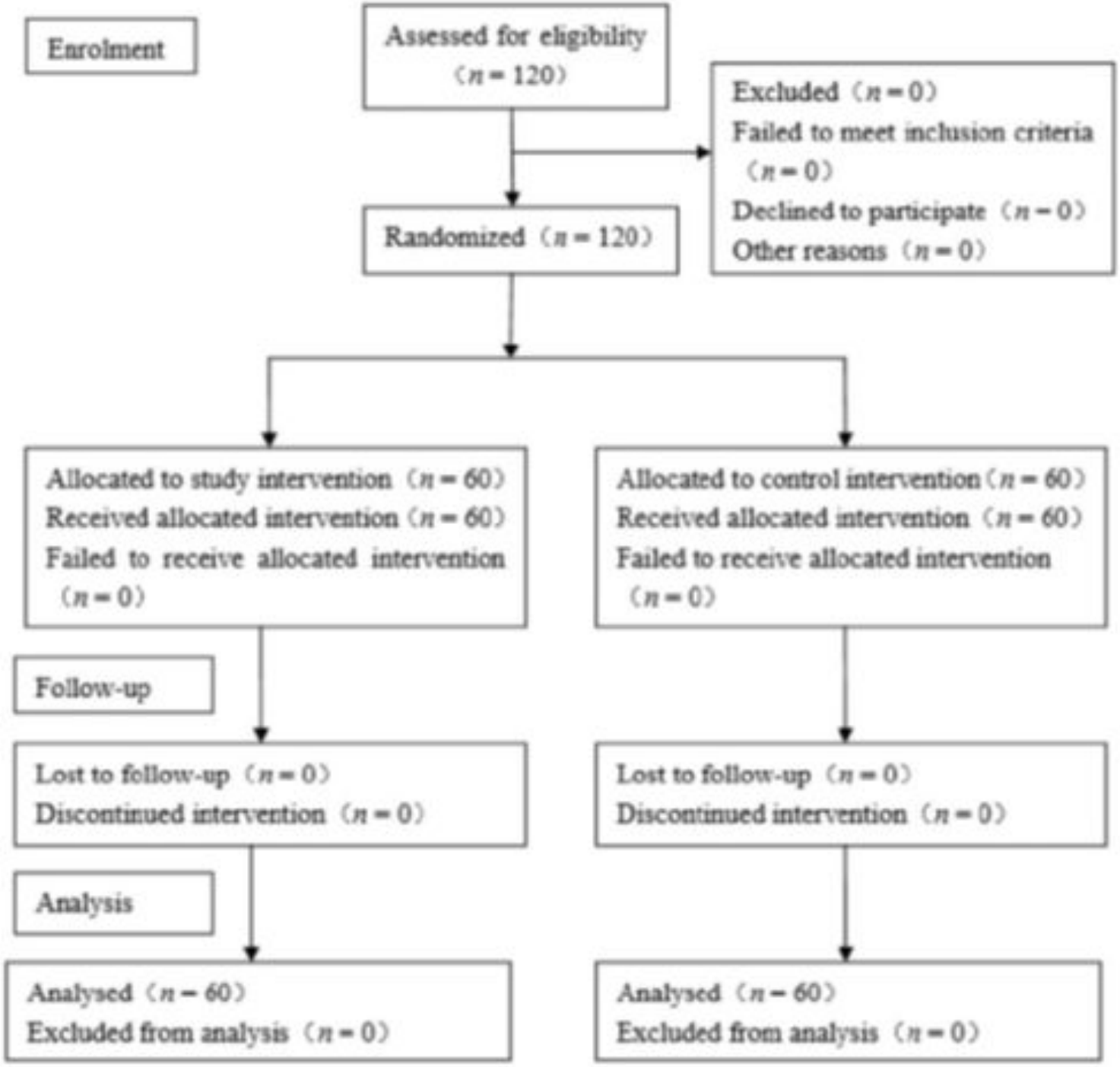
[a]$P < 0.001$, compared with group C; χ^2-test, Kruskal–Wallis test.

p<0,05 (0,001)



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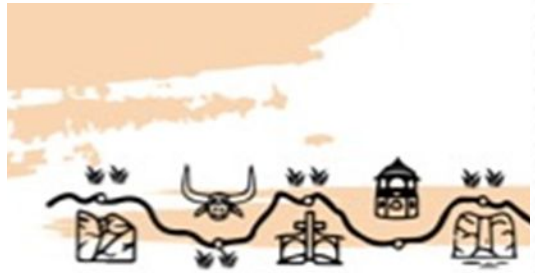
p<0,05 (0,001)



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Clinical Research Report

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Clinical Research Report

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Addition of Neostigmine and Atropine to Conventional Management of Postdural Puncture Headache: A Randomized Controlled Trial

Ahmed Abdelaal Ahmed Mahmoud, MD, FCAI,*† Amr Zaki Mansour, MD,‡
Hany Mahmoud Yassin, MD,§ Hazem Abdelwahab Hussein, MD,*
Ahmed Moustafa Kamal, MD,‡ Mohamed Elayashy, MD, FCAI,‡ Mohamed Farid Elemady, MD,‡
Hany W. Elkady, MD,‡ Hatem Elmoutaz Mahmoud, MD,*
Barbara Cusack, LRCP&SI, MB MCh, NUI, MCAI,† Hisham Hosny, MD,‡ and Mohamed Abdelhaq, MD‡

Addition of Neostigmine and Atropine to Conventional Management of Postdural Puncture Headache: A

Ah
Ha
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Ba

Table 5. Treatment-Associated Side Effects in the N and P Groups

	N Group (n = 41)	P Group (n = 44)
Diarrhea, n (%)	None	None
Abdominal cramps, n (%)	8 (19.5)	None[a]
Muscle cramps, n (%)	2 (0.05)	None
Muscle twitches, n (%)	6 (14.6)	None[a]
Bronchospasm, n (%)	None	None
Urinary bladder hyperactivity, n (%)	5 (12.2)	None[a]

‡

Table 3. Secondary Outcomes of N and P Groups Treatment of PDPH

	N Group (n = 41)	P Group (n = 44)	*P* Value
Need for EBP, n (%)	0 (0)	7 (15.9)	.008
Neck stiffness (yes/no), n (%)			
Before intervention	15 (36.6)	12 (27.3)	
6 h after intervention	15 (36.6)	12 (27.3)	
12 h after intervention	13 (31.7)	12 (27.3)	
24 h after intervention	13 (31.7)	9 (20.5)	
36 h after intervention	12 (29.3)	8 (18.2)	
48 h after intervention	10 (24.4)	8 (18.2)	
72 h after intervention	10 (24.4)	8 (18.2)	.48
Nausea and vomiting (yes/no), n (%)			
Before intervention	7 (17.1)	11 (25)	
6 h after intervention	6 (14.6)	8 (18.2)	
12 h after intervention	5 (12.2)	5 (11.4)	
24 h after intervention	5 (12.2)	4 (9.1)	
36 h after intervention	4 (9.8)	4 (9.1)	
48 h after intervention	4 (9.8)	4 (9.1)	
72 h after intervention	4 (9.8)	4 (9.1)	.92

+2 casos no grupo N e p=0.15..

Fator Bayesiano =5: deve ser considerado..

Mensagens para levar

Diagnóstico: epidemiologia+clínica

- Cafeína, repouso, infusão de fluidos
- Agulhas cortantes ou <27G

Mensagens para levar

Bloqueio esfenopalatino: leves?

 Tampão sanguíneo <48h

Neostigmine? Aminofilina?