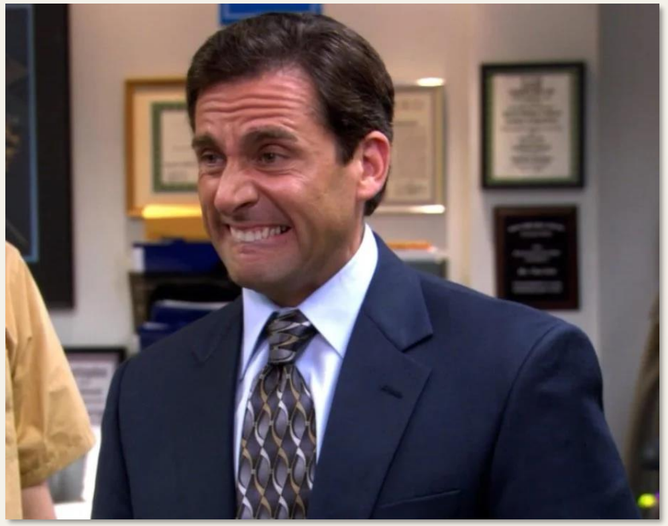
CO DĚLÁM,

KDYŽ MI NESEDÍ ANESTEZIE K SEKCI…

Alena Bauerová
KARIM VFN

3 STADIA NESEDÍCÍHO BLOKU







ZNÁMÁ SITUACE…

Selhání bloku

Inadequate neuraxial anesthesia during cesarean delivery: incidence and predictors in a large retrospective contemporary cohort

Orhun Demir*, Omer Zuhtu Yondem and Baris Ecevit Yuksel

Department of Anesthesiology, Faculty of Medicine, Lokman Hekim University, Ankara, Türkiye

KONVERZE NA CA v 0,9% případů

ANALGÉZIE +/- sedace v 4% případů

1. **Nesedící blok - výška/kvalita/symetrie**
2. **Bolest během výkonu**
3. **Opožděný nástup/odeznívání bloku**

A total of 3,382 cesarean deliveries performed
anesthesia were included in the analysis. Adeq
anesthesia was achieved in 3,216 patients (95.1%). A
patients, 166 (4.9%) experienced an inadequate spinal block,
including 135 patients (4.0%) with partial failure and 31 patients
(0.9%) with total failure.

ZNÁMÁ SITUACE…

Intraoperative Pain during Cesarean Delivery under Neuraxial Anesthesia: A Systematic Review and Meta-analysis

Elinor A. Charles[1], Hester Carter[2], Susanna Stanford[3], Lindsay Blake[4], Victoria Eley[5], Brendan Carvalho[6], Pervez Sultan[7], Justin Kua[8], James E. O'Carroll[9]

Authors and Affiliations >

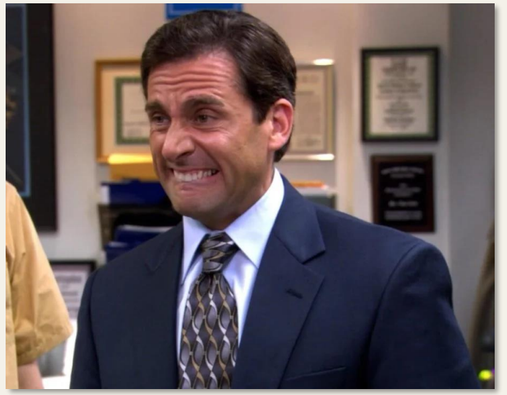
Anesthesiology 143(1):p 156-167, July 2025. | *DOI:* 10.1097/ALN.0000000000005486

A total of 2,061 abstracts were screened; 34 articles were included (21 randomized studies and 13 nonrandomized studies). The crude incidence of intraoperative pain under neuraxial anesthesia was 10.8% (1,229 of 11,351 patients), and the pooled incidence was 17% (95% CI, 13 to 22%; 1,229 of 11,351 patients). Patients who received spinal anesthesia had the lowest pooled incidence of pain of 14% (95% CI, 10.0 to 20.0%; 662 of 8,002 patients), and those who received epidural top-up had the highest pooled incidence of pain of 33% (95% CI, 17.0 to 54.0%; 253 of 1,395 patients). Risk of bias




12:47 36



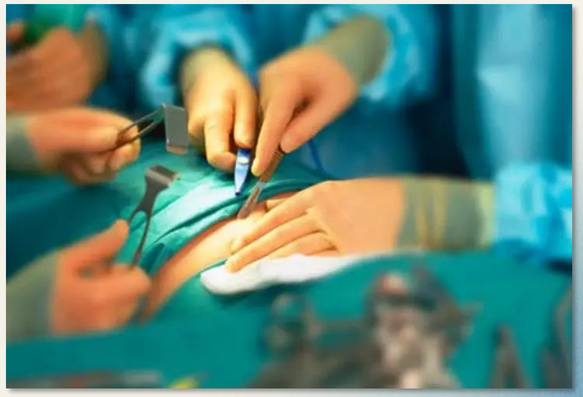



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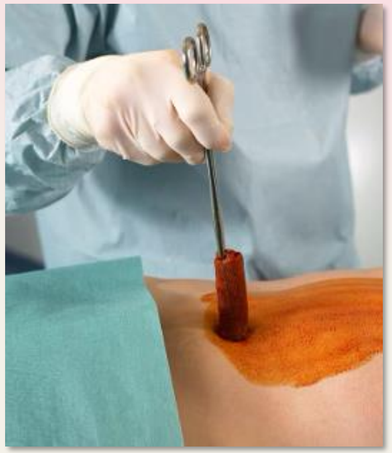

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1120
48
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MAP
(60)







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RESEARCH Open Access

Obstetric anaesthesia for caesarean section in Central Europe: a prospective population-weighted binational audit (OBAAMA-COV Study)

Jan Bláha[1*†], Pavlína Nosková[1†], Dagmar Seidlová[2], Monika Grochová[3], Radka Klozová[4], Josef Firment[3], Hana Harazim[5], Kateřina Kusalová[6], Michal Svoboda[6], Deana Slovjaková[7], Nela Rezbáriková[1], Quynh Giang Nguyenová[1], Petr Štourač[5,8] and the OBAAMA-C. O. V. Study Group

Table 2 Population-weighted estimates of the reason for administering

	Czech Republic			
	Elective CS	Emerge		
	N = 225*	*N* = 508*		
Urgency	0.4% (0.4–0.4)	70.2% (6		
Maternal preference	62.9% (57.8–68.0)	14.4% (1		
LMWH applied	3.1% (0.8–5.4)	1.1% (0.4–1.9)	0.7% (0.2–1.1)	1.9% (0.0–3.9)
Bleeding complications	1.1% (0.0–2.8)	1.8% (0.8–2.9)	2.3% (0.1–4.5)	1.4% (0.0–2.9)
Failure of neuraxial blockade	14.5% (11.4–17.6)	4.9% (4.2–5.5)	15.9% (10.6–21.2)	2.8% (0.5–5.1)
Placentation disorder	1.3% (0.8–1.6)	2.1% (1.0–3.1)	0.0%	0.0%
Other	16.6% (12.7–20.6)	5.6% (4.3–6.9)	14.2% (9.0–19.4)	1.9% (0.4–3.4)

Data are given as percentages (95% CI). National numbers of caesarean deliveries were derived from official statistics of the Institute of Health Information of the Czech Republic (*) and the National Health Care Information Centre of Slovakia (**). Identical confidence interval limits indicate zero sampling variance in strata with 100% participation after finite population correction. Emergency caesarean deliveries include urgency categories 1–3 according to the widely used Lucas classification [10]. *CS* caesarean section, *LMWH* low molecular weight heparin

Systemic adjuvants for insufficient block

Propofol	16.7%
Thiopental	1.9%
Midazolam	35.2%
Diazepam	22.2%
Nitrous oxide	1.9%
Sevoflurane	3.7%
Sufentanil	46.3%
Alfentanil	0
Fentanyl	0
Remifentanil	0

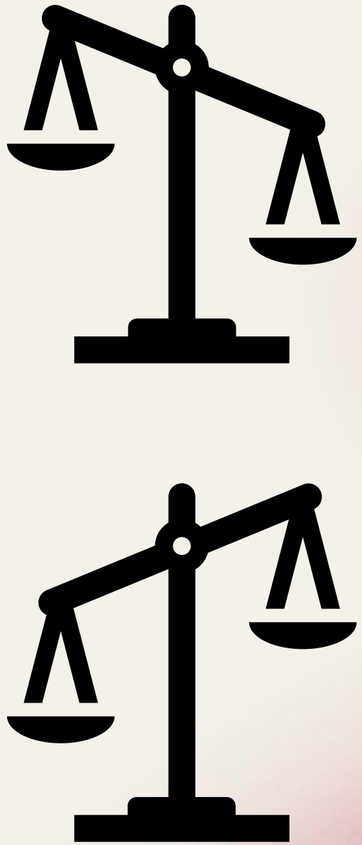
CÍL = CHIRURGICKÁ ANESTEZIE

ANXIETA

SEDACE

ANALGÉZIE

BOLEST



SELHÁNÍ

KONVERZE NA CA

ORIGINAL ARTICLE

EJP European Journal of Pain

Intraoperative pain during caesarean delivery: I
factors and physician pe

Amir Keltz[1,2] | Philip Heesen[3] |
Karam Azem[1,2] | Yair Binyamin[6,7]
Sharon Orbach-Zinger[1,2]

Anaesthesia 2018, 73, 223–230 doi:10.1111/anae.14119

CÍSAŘOVNÁM

Rozcestník pomoci | Průvodce péčí | Mapa | O nás | Blog a příběhy | Podcast | 0 | Obchod

Anestezie a císařský řez

Císařský řez je velká břišní operace, která může proběhnout buď v regionální či jinak „částečné" anestezii nebo v anestezii celkové.

Většina porodů císařským řezem je provedena v částečné anestezii – epidurální či spinální. K celkové anestezii je přistupováno v situacích, kdy je bezprostředně ohrožený život matky či dítěte nebo v případech, kdy je částečná anestezie nevhodná.

682 příběhů, 58% nesedící RA



Kdo rozhoduje o anestezie?

Check for updates

ýběru vhodného typu anestezie bude mít vždy **anesteziolog**

ledňuje 4 aspekty –

ituace



of litigation for pain

We were unable to p
operative anxiety, antic
ticipated intraoperative

pain. We als
and anaesthe
parturients' p

s. In 33% of cases, the
accept that the block
d failed despite evidence to the contrary and was
reluctant to convert to general anaesthesia [19, 20].

Research Article

Women's experience of pain during cesarean delivery due to inadequate neuraxial anesthesia without conversion to general anesthesia: a qualitative study

Sofia Kunø la Cour[a], Alexandra Claire McKenzie[a], Patricia Duch[b], Helene Korvenius Nedergaard[c,d,*]

[a] Department of Anesthesiology and Intensive Care, Esbjerg Hospital, University Hospital of Southern Denmark, Esbjerg, Denmark
[b] Department of Anesthesia, Copenhagen University Hospital North Zealand, Hillerød, Denmark
[c] Department of Anesthesiology and Intensive Care, University Hospital of Southern Denmark, Kolding, Denmark
[d] Department of Regional Health Research, University of Southern Denmark, Odense, Denmark

Sex bias in pain management decisions

Mika Guzikevits[a,b,1], Tom Gordon-Hecker[c,1], David Rekhtman[d], Shaden Salameh[d], Salomon Israel[e], Moses Shayo[b,f], David Gozal[g,h], Anat Perry[e], Alex Gileles-Hillel[i,j,2], and Shoham Choshen-Hillel[a,b,2,3]

Affiliations are included on p. 7.

Edited by Timothy Wilson, University of Virginia, Charlottesville, VA; received January 29, 2024; accepted July 2, 2024













American Society of Anesthesiologists

Statement on the Use of Adjuvant Medications and Ma of Intraoperative Pain During Cesarean Delivery

Developed by: *Committee on Obstetric Anesthesia*
Original Approval: *October 23, 2024*

- Remifentanil (20 mcg boluses or 0.05 - 0.1 mcg/kg/min infusion)[29-31]
- Alfentanil (250 to 500 mcg boluses, maximum cumulative dose < 10 mcg/kg
- Fentanyl (25 to 50 mcg boluses, maximum cumulative dose < 1.5 mcg/kg pri

Ketamine (10 mg boluses, maximum cumulative dose < 1 mg/kg)

Dexmedetomidine (10 mcg boluses, 0.5 mcg/kg loading dose ove

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Original Investigation | Anesthesiology

Perioperative Adjunctive Esketamine for Postpartum Depression Among Women Undergoing Elective Cesarean Delivery

A Randomized Clinical Trial

Yu Chen, MD; Yu Guo, MS; Han Wu, MS; Yi-Jie Tang, MD; Suren Rao Sooranna, PhD; Li Zhang, MS; Ting Chen, MS; Xi-Yuan Xie, MD; Liang-Cheng Qiu, MS; Xiao-Dan Wu, MD

Intraoperative pain may have long-term implications for the mother, including postpartum depression, posttraumatic stress disorder and chronic pain (Komatsu et al., 2020; Lopez et al., 2017; McCombe & Bogod, 2020; Stanford & Bogod, 2016). Furthermore, postpartal mental health disorders may cause long-term sequalae in mother, partner and child (Heesen et al., 2020; Torres et al., 2019).

RESEARCH Open Access

Post-traumatic stress disorder in parturients delivering by caesarean section and the implication of anaesthesia: a prospective cohort study

U. Lopez[1*], M. Meyer[2], V. Loures[3], I. Iselin-Chaves[3], M. Epiney[4], C. Kern[2] and G. Haller[3]

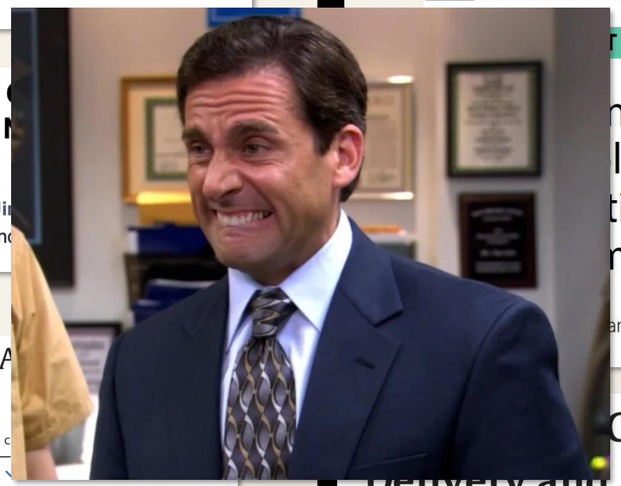
J Perinat Med. 2020 Jun 25;48(5):463-470. doi: 10.1515/jpm-2019-0412.

The impact of general anesthesia on mother-infant bonding for puerperants who undergo emergency cesarean deliveries

Kenta Nitahara [1], Nobuhiro Hidaka [1], Atsuhiko Sakai [1], Saki Kido [1], Kiyoko Kato [1]

Association of General Anesthesia and Neuraxial Anesthesia in C Section with Maternal Postpartum Depression: A Retrospective N Population-Based Cohort Study

by Kuo-Hsun Hung [1,†], Shao-Lun Tsao [2,3,†], Shun-Fa Yang [1,4], Bo-Yuan Wang [1,5,6], Ji
Wen-Tyng Li [2], Liang-Tsai Yeh [1,3,7], Cheng-Hung Lin [8,9], Yin-Yang Chen [6,10,*] and



TIC REVIEW Open Access

nce and correlates of postpartum
llowing emergency cesarean sections:
tions for perinatal mental health care:
natic review and meta-analysis

angelia Antoniou[2], Ioannis Zervas[3] and Antigoni Sarantaki[2*]

Incidence, Severity, and Interference of Chronic Postsurgical Pain A
Delivery: A Systematic Review and Meta-analysis

Sarah Ciechanowicz MA, BMBCh, MRes [a], Rebekah Reville Joy BA (Hons), PGCert [b], Julia Kasmirski MD [c]
Lindsay Blake EdD, MLIS, AHIP [d], Brendan Carvalho MBBCh [a], Pervez Sultan MBChB, MD(Res) [a] Show more

General Anesthesia for Cesarean
Delivery and Odds of Severe Postpartum Depression
Requiring Hospitalization

Jean Guglielminotti [1], Guohua Li [1] [2]

Anaesth Intensive Care. 2009 Sep;37(5):748-52. doi: 10.1177/0310057X0903700513.

Incidence and risk factors for chronic pain after caesarean section under spinal anaesthesia

B L Sng [1], A T H Sia, K Quek, D Woo, Y Lim

American Society of Anesthesiologists

Statement on Providing Psychological Support fo
Patients

Developed by
Original Appr

2. **Trauma-Informed Care:** This statement highlights how the best practices
professionals in obstetric settings. The principles of TIC can help avoid exa
experience for all patients.
3. **Pain Management and Anxiolysis:** Effective pain management is important in reducing the risk of poor birth exp
outlines strategies for both pain control and anxiolysis, including the use of pharmacologic anxiolysis, while bala
and benefits to both the mother and neonate.

- **Utilize the postpartum day 1 visit for early identification** of women at high-risk for developing PTSD and to allow for discussion surrounding events that may have been confusing for patients
  - Enlist early referral to support services for at risk patients

treatment effects seen beyond the early postpartum period.[12] Obstetric anesthesia evaluation in the postpartum period presents an opportunity for meaningful communication, validation of experiences, identification of at-risk patients, and provision of psychological support and referral for support services. Evidence suggests these strategies of support, sovereignty, and sharing offer the strongest protection against traumatic birth experiences.

1. Ztráta kontroly
2. Narušení autonomie
3. Zásah do tělesné integrity

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– beztrestu.cz, 2024

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– stopznasilneni.cz, 2009

90%
pět dobře

CENTRUM PERINATÁLNÍ DUŠEVNÍ PÉČE

CÍL = CHIRURGICKÁ ANESTEZIE



SEDACE





K









Děkuji za pozornost.

alena.bauerova@vfn.cz