

LÉKAŘSKÁ FAKULTA
MASARYKOVY UNIVERZITY
A FAKULTNÍ NEMOCNICE BRNO



**KLINIKA DĚTSKÉ
ANESTEZIOLOGIE
A RESUSCITACE**

Jak EBM ovlivnila moji praxi v dětské anestezii

MUDr. Michaela Ťoukálková

**MUNI
MED**

**FAKULTNÍ
NEMOCNICE
BRNO**

Jak se stane, že vás ovlivní EBM

- Něco si někde přečtete (monitoring článků na "akutne.cz", odborný časopis)
- Poslechnete si na kongrese (konference AKUTNĚ)
- Sami si vyhledáte v databázi
- Řekne vám zvědavější (chytřejší) kolega (doc. Klučka)



Použití kanyl s obturační manžetou

Anesthesiology

1997; 86: 27-31

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Comparison of Cuffed and Uncuffed Endotracheal Tubes in Young Children during General Anesthesia

Henry H. Khine, M.D.,* David H. Corddry, M.D.,† Robert G. Kettrick, M.D.,‡ Thalia M. Martin, M.D.,§
John J. McCloskey, M.D.,§ John B. Rose, M.D.,§ Mary C. Theroux, M.D.,§ Michael Zagnoev, M.B., B.Ch.||

- donošení novorozenci - 8 let
- elektivní výkon vyžadující intubaci
- OTK s nízkotlakou manžetou = $(\text{věk}/4)+3$
- zařadili 251 s manžetou vs. 237 bez

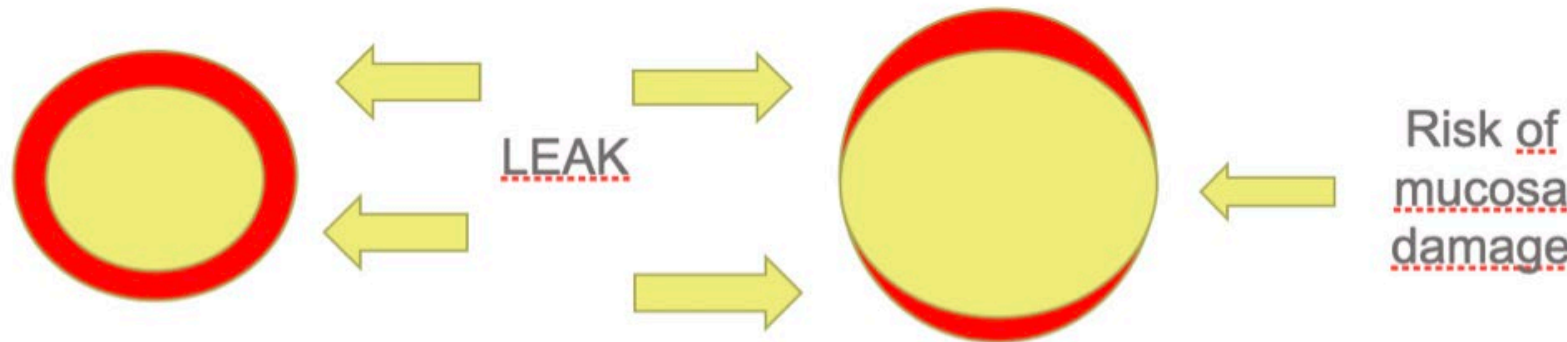


The Feasibility of Ultrasound to Assess Subglottic Diameter

(Anesth Analg 2007;104:611-4)

Table 4. Eff
Gas Flow R

Total patient
Patients nee
Patients nee



MRI measurements indicated that the cricoid lumen transverse diameter (15 ± 2 mm) was smaller than that of the anteroposterior (19 ± 3 mm; $P < 0.05$).

Comparative Group	
Uncuffed Tube	P Value*
237	
15 (6.3)	>0.5
7 (2.9)	>0.5
3 (1.3)	>0.5
1 (0.4)	>0.5



PAEDIATRICS

Prospective randomized controlled multi-centre trial of cuffed or uncuffed endotracheal tubes in small children[#]

- 0-5 let, anestezie vyžadující intubaci
- prospektivně randomizovaná, 24 evropských center
- postextubační stridor a nutnost reintubace
- 2246 dětí



Table 7 Reasons for tube exchange and incidence; data expressed as number of incidents or as indicated. ** $P=0.01$; *** $P<0.001$; **** $P<0.0001$

	Cuffed tubes initial ($n=1119$)	Uncuffed tubes initial ($n=1127$)
Tube passage		
Resistance to pass into the trachea	7	46***
Leakage (n tested)	1112	1081
>20 cm H ₂ O inflation pressure for air leak	10	112***
Sealing (n tested)	1102	969
Peak inspiratory pressure used (cm H ₂ O) [mean (SD)]	17.3 (3.4)	16.3 (3.2)***
No audible air leak	1018	398
Acceptable air leak	78	383
Excessive air leak	6	188
Minimal cuff pressure for sealing cm H ₂ O [mean (SD)]	10.6 (4.3)	—
Tube exchange		
Tube exchange	24 (2.1%)	347 (30.8%)****
Reason for tube exchange		
Resistance to pass the tube	7	46***
No air leak at 20 cm H ₂ O	10	112***
Excessive air leak at IPPV	6	188***
Others (too long preformed tube)	1	1
Patients with more than one tube exchange	5	87***
Total number of tube exchanges	29	434***
Throat pack used	2.7%	10.0%**

In conclusion, when using appropriately designed cuffed TTs with a clear concept for cuff pressure control and tube size selection, cuffed tubes have a much higher chance of fitting at first attempt than uncuffed tubes. Cuffed TTs are not *per se* associated with higher airway morbidity in small children, objectified here as post-extubation stridor, and thus they can be used safely in this age group.



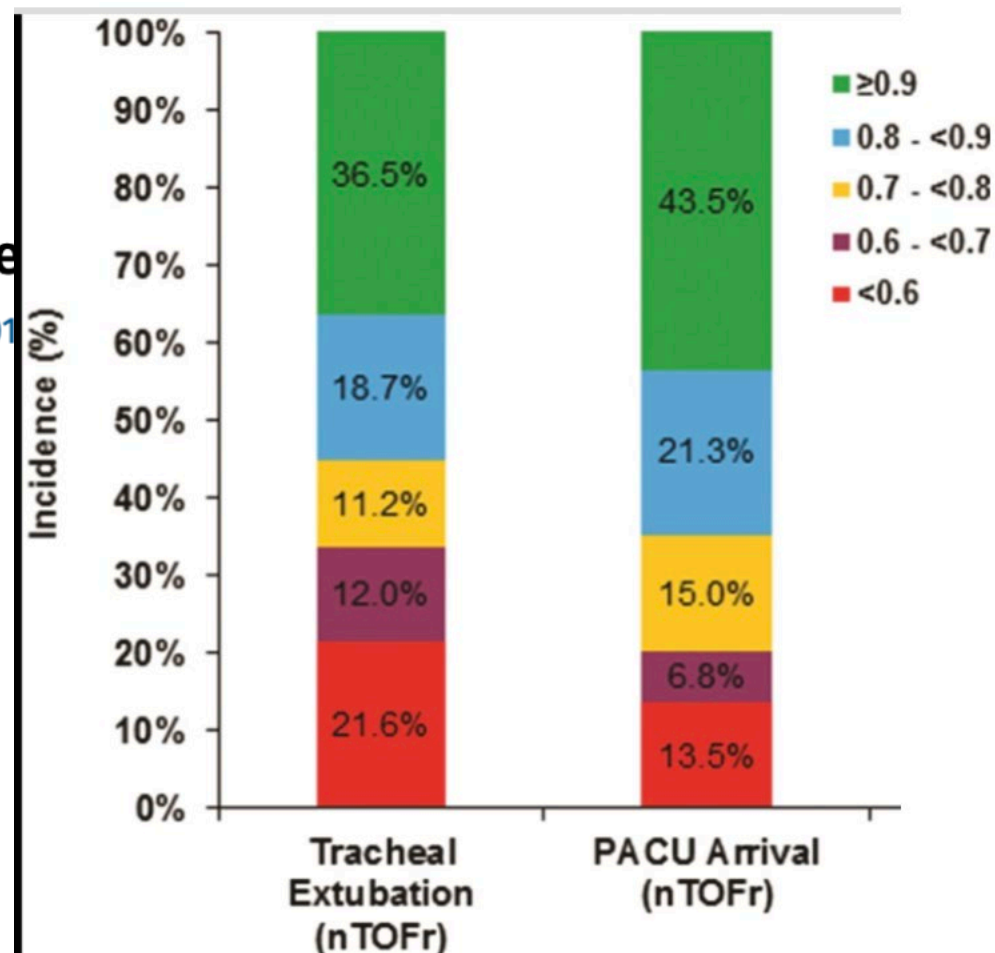
Reziduální kurarizace - data k pediatrické populaci?

The RECITE Study

A Canadian Prospective, Multicenter Study of the of Residual Neuromuscular Blockade

August 201

- observační, multicentrická, zaslepená
- data po extubaci 241 pacientů
- data z PACU od 207 pacientů



Residual neuromuscular block in paediatric anaesthesia

J Klucka¹, M Kosinova¹, I Krikava¹, R Stoudek¹, M Toukalkova¹, P Stourac²

Table 1 Residual neuromuscular block (RNB) incidence in OR and PACU. CI, confidence interval; OR, operating room; TOF, train-of-four count

RNB incidence	Patients measured in OR (n=282)			Patients measured in PACU (n=119)		
	n	%	95% CI in %	n	%	95% CI in %
TOF ≥ 0.9	146	51.8	45.9–57.6	87	73.1	64.7–80.5
TOF < 0.9 (RNB)	136	48.2	42.4–54.1	32	26.9	19.5–35.3

- observační, nezaslepená
- problém stejný, jako v dospělé populaci...!!!



Ultrazvukem navigované kanylace cév

Guidelines for Performing Ultrasound Guided Vascular Cannulation: Recommendations of the American Society of Echocardiography and the Society of Cardiovascular Anesthesiologists

Christopher A. Troianos, MD, Gregg S. Hartman, MD, Kathryn E. Glas, MD, MBA, FASE, Nikolaos J. Skubas, MD, FASE, Robert T. Eberhardt, MD, Jennifer D. Walker, MD, and Scott T. Reeves, MD, MBA, FASE, for the Councils on Intraoperative Echocardiography and Vascular Ultrasound of the American Society of Echocardiography, *Pittsburgh, Pennsylvania; Lebanon, New Hampshire; Atlanta, Georgia; New York, New York; Boston, Massachusetts; and Charleston, South Carolina*

(J Am Soc Echocardiogr 2011;24:1291-318.)

Keywords: Anatomy, Artery, Cannulation, Femoral, Guidelines, Internal jugular, Pediatric, Peripheral, Subclavian, Ultrasound, Vascular, Venous



Supraklavikulární přístup do centrálního řečiště

[Front Pediatr.](#) 2017; 5: 211.

Published online 2017 Oct 5. doi: [10.3389/fped.2017.00211](https://doi.org/10.3389/fped.2017.00211)

PMCID: PMC5633682

PMID: [29051889](https://pubmed.ncbi.nlm.nih.gov/29051889/)

Supraclavicular Approach to Ultrasound-Guided Brachiocephalic Vein Cannulation in Children and Neonates

- vysoká úspěšnost zobrazení jak cévy, tak jehly
- bezpečná punkce i pro novorozence nižších váhových kategorií



Bezpečnost RA prováděné v CA

Review > [Curr Opin Anaesthesiol.](#) 2017 Oct;30(5):621-626.

doi: 10.1097/ACO.0000000000000504.

Regional blocks carried out during general anesthesia or deep sedation: myths and facts

Peter Marhofer¹

- rozvoj UZ navigovaných technik = bezpečí
- vidím nerv, jehlu i šíření LA



Co nás asi čeká...

Pre-operative fasting in children

A guideline from the European Society of Anaesthesiology and Intensive Care



- čiré tekutiny 1 hod., mateřské mléko 3 hodiny před výkonem
- pomoc UZ vyšetření antra žaludku v klinickém rozhodování



Děkuji za pozornost