

POCD po kardiochirurgické operaci



IK+E
M INSTITUT KLINICKÉ
A EXPERIMENTÁLNÍ
MEDICÍNY

Hynek Říha

KAR KC IKEM, Praha
KARIM 1. LF UK, Praha

Výchozí situace

- rok 2003
- muž 72 let
- **ICHS**
 - ✓ SKG => nález na koronárním řečišti neřešitelný PCI, indikován CABG
 - ✓ LVEF 50%
- **Komorbidity**
 - ✓ CHOPN (bez inhalační léčby, spirometrie ještě v normě)
 - ✓ obezita (180 cm, 115 kg, BMI 35,5)
 - ✓ DM II (dieta?)
 - ✓ fragilní, problematicky identifikovatelné periferní žíly

Akutní CABG

- **Progrese stavu do nestabilní AP (AP III–IV CCS)**

➤ **Indikace k akutnímu CABG**

- Pacient přijíždí do nemocnice spontánně ventilující s O₂ maskou
- Jedna periferní žilní kanyla (G20) – heparin kont. i.v.

- Kanylace a. radialis l.sin.
- Další periferní žilní kanyla G22
- Úvod do CA (oro-tracheální intubace)

▪ **CŽK**

- ✓ IJV l.dx.: nedaří se lokalizovat žílu
- ✓ v. subclavia l.dx.: nedaří se lokalizovat žílu
- ✓ IJV l.sin.: 3. vpich => CŽK
- ✓ vzduch/tepna 0; v.s. velmi atypický průběh IJV

RES

- Dva mediastinální drény (perikardiální a retrosternální)
- Hemodynamicky bez problémů
- Neurologicky bez problémů

- Auskultačně symetrické, mírně oslabené, sklípkové dýchání
- RTG S+P (AP): širší srdeční stín, vyšší poloha bránic, ploténkové atelektázy

- UPV: zpočátku vyšší PEEP (8 cmH₂O) a FiO₂ (0,6)
 - Postupný weaning UPV
 - Extubace po 14 h od příjezdu na RES

JIP

- Proměnlivé/horší hodnoty SpO₂ (86–94 %)
- Intermittentní zmatenost/dezorientace/mírná agresivita (POCD)

- ✓ Auskultačně symetrické, lehce oslabené, sklípkové dýchání
- ✓ RTG S+P (AP: lehce širší srdeční stín, vyšší poloha bránic)

- O₂ maskou
- Intenzivní dechová RHB (CPAP, balon, inhalační léčba)
- Prokinetika

- S_pO₂ ~ 90–92 %
- Přetrvávající klinické projevy POCD

Co dělat?

???

POCD

Postoperative Cognitive Dysfunction Is Independent of Type of Surgery and Anesthetic

Lisbeth Evered, BSc, MBiostat,* David A. Scott, MB, BS, PhD, FANZCA,*
Brendan Silbert, MB, BS, FANZCA,* and Paul Maruff, PhD†

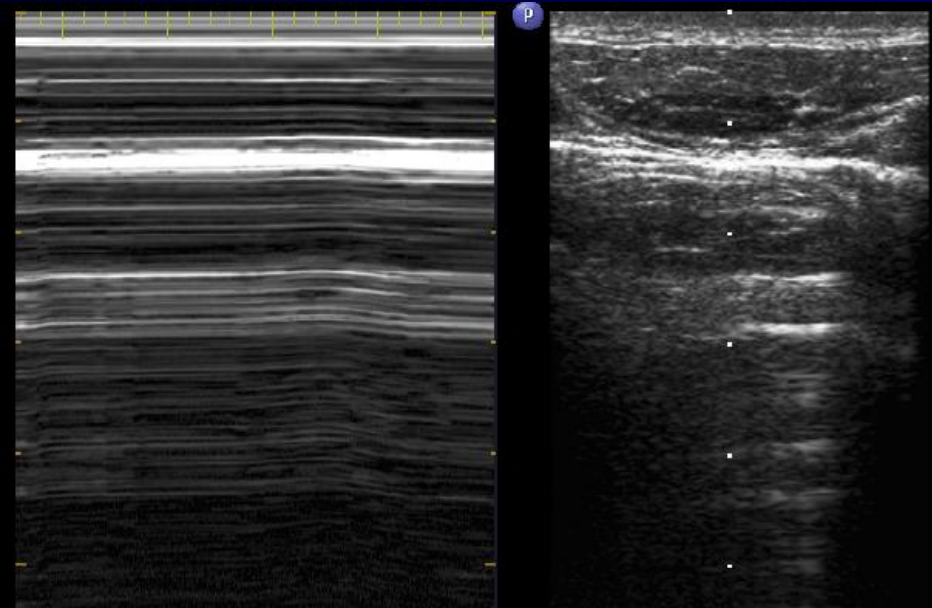
BACKGROUND: Postoperative cognitive dysfunction (POCD) has been documented after cardiac and noncardiac surgery. The type of surgery and anesthetic has been assumed to be associated with the incidence but there are few prospective data comparing the incidence after different procedures. In this study, we sought to determine the association of the type of surgical procedure and anesthesia on the incidence of POCD after procedures involving light sedation, general anesthesia for noncardiac surgery, and general anesthesia for cardiac surgery involving cardiopulmonary bypass.

METHODS: Eight neuropsychological tests were administered at baseline and at 7 days and 3 months postoperatively to subjects from 3 procedure groups and a nonoperative control group. Reliable change index was used to calculate POCD. The study sample consisted of subjects involved in 3 separate trials investigating coronary angiography (CA) (percutaneous diagnostic procedure) under sedation, major noncardiac surgery (total hip joint replacement [THJR] surgery) under general anesthesia, and coronary artery bypass graft (CABG) surgery under general anesthesia.

RESULTS: Data were collected from 644 patients in the patient groups and 34 subjects in the control group. Neuropsychological results were available for POCD at day 7 for THJR surgery ($n = 162$) and CABG surgery ($n = 281$). The incidence of POCD at day 7 was 17% for THJR surgery and 43% for CABG surgery (adjusted odds ratio = 0.2, 95% confidence interval [CI]: 0.1, 0.4; $P < 0.01$). At 3 months, the incidence of POCD for all groups combined ($n = 636$) was 17% (21% for CA under sedation, 16% for THJR surgery, and 16% for CABG surgery). The mean (95% CI) for the difference in proportions of POCD among groups was 0.00 (-0.07, 0.07) ($P = 0.91$) for CABG versus THJR; -0.05 (-0.12, 0.03) ($P = 0.21$) for CABG versus CA; and -0.05 (-0.13, 0.03) ($P = 0.24$) for THJR versus CA. There were no significant differences among groups (adjusted odds ratio = 1.21, 95% CI: 0.94, 1.55; $P = 0.13$).

CONCLUSIONS: The incidence of POCD in old and elderly patients at day 7 was higher after CABG surgery than THJR surgery, but POCD at 3 months was independent of the nature or the type of procedure or anesthetic when comparing CA, THJR, and CABG surgery groups. Cardiovascular risk factors were not predictive of POCD after any procedure. (Anesth Analg 2011;112:1179-85)

2015



Stone MB. *Point-of-Care Lung Ultrasound*. Philips: 2015.



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*