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Bariatric Anesthesiologist: Macquarie University, Sydney, Australia
President: ISPCOP
https://www.ispcop.net

I have no potential conflicts of interest to report

Bariatric Anesthesia Literature That Has Changed My Practice In The Last Decade: Dr Adrian Sultana

ISPCOP SESSION

ANESTHESIA FOR BARIATRIC SURGERY, ROBOTS, ERABS AND ALL YOU NEED TO KNOW TO UPDATE YOUR PRACTISE IN 2023

15.00 - 16.30

Chair: Anupama N Wadhwa (USA)

Moderators: Giuseppe Marinari (Italy), Giuseppe Servillo (Italy)

IFSO NAPOLI 2023

15:40-15:55
‘Bariatric’ Anesthesia Literature That Has Changed My Practice In The Last ‘Decade’

Dr Adrian Sultana, Australia

15:55-16:00 Q&A

GOALS FOR TODAY:

SELECT TOPICS ALONG THE BARIATRIC PATIENT'S ANESTHESIA AND PERIOPERATIVE JOURNEY THAT ARE:

LANDMARK
EVIDENCE- BASED
AUTHORITATIVE
STATE OF THE ART
*plus some personalized 

WHAT'S NEW WHAT'S BEST?

1. PREOPERATIVE ASSESSMENT
2. PRE OXYGENATION
3. AIRWAY METHODOLOGY
4. ANESTHESIA TECHNIQUE
5. PERIOPERATIVE NAUSEA AND VOMITING

Preoperative assessment:
1 Sleep Apnea CHEST 2016; 149(3):631-638

[Commentary]

CHEST

STOP-Bang Questionnaire

A Practical Approach to Screen for Obstructive Sleep Apnea

Frances Chung, MBBS; Hairil R. Abdullah, MBBS; and Pu Liao, MD

CrossMark

Yes ○ No ○

Snoring ?

Do you **Snore Loudly** (loud enough to be heard through closed doors or your bed-partner elbows you for snoring at night)?

Yes ○ No ○

Tired ?

Do you often feel **Tired, Fatigued, or Sleepy** during the daytime (such as falling asleep during driving or talking to someone)?

Yes ○ No ○

Observed ?

Has anyone **Observed** you **Stop Breathing** or **Choking/Gasping** during your sleep ?

Yes ○ No ○

Pressure ?

Do you have or are being treated for **High Blood Pressure** ?

Yes ○ No ○

Body Mass Index more than 35 kg/m^2?

Body Mass Index Calculator

○ cm / kg ○ inches / lb

Height: Weight:

Calculate

BMI:

Yes ○ No ○

Age older than 50 ?

Yes ○ No ○

Neck size large ? (Measured around Adams apple)

Is your shirt collar 16 inches / 40cm or larger?

Yes ○ No ○

Gender = Male ?

Preoperative assessment:
2 CARDIOVASCULAR STATUS

JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY
VOL. 81, NO. 5, 2023

PUBLISHED BY ELSEVIER

THE PRESENT AND FUTURE

JACC STATE-OF-THE-ART REVIEW

Challenges in Cardiovascular Evaluation and Management of Obese Patients

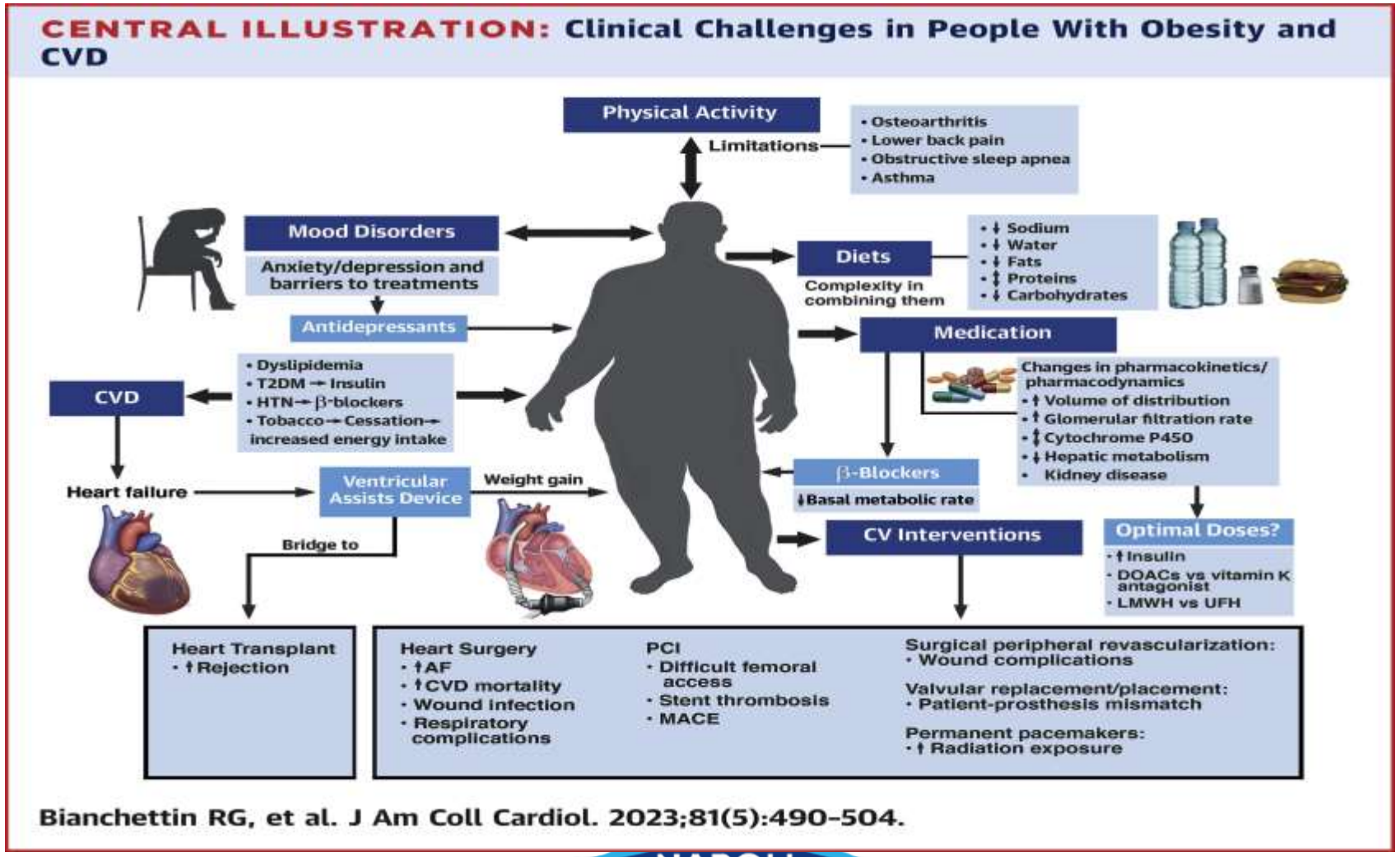
JACC State-of-the-Art Review

Rosana G. Bianchettin, MD,[a] Carl J. Lavie, MD,[b] Francisco Lopez-Jimenez, MD[b]

ABSTRACT

Many unique clinical challenges accompany the diagnosis and treatment of cardiovascular disease (CVD) in people living with overweight/obesity. Similarly, physicians encounter numerous complicating factors when managing obesity among people with CVD. Diagnostic accuracy in CVD medicine can be hampered by the presence of obesity, and pharmacological treatments or cardiac procedures require careful adjustment to optimize efficacy. The obesity paradox concept remains a source of confusion within the clinical community that may cause important risk factors to go unaddressed, and body mass index is a misleading measure that cannot account for body composition (eg, lean mass). Lifestyle modifications that support weight loss require long-term commitment, but cardiac rehabilitation programs represent a potential opportunity for structured interventions, and bariatric surgery may reduce CVD risk factors in obesity and CVD. This review examines the key issues and considerations for physicians involved in the management of concurrent obesity and CVD. (J Am Coll Cardiol 2023;81:490–504) © 2023 by the American College of Cardiology Foundation.

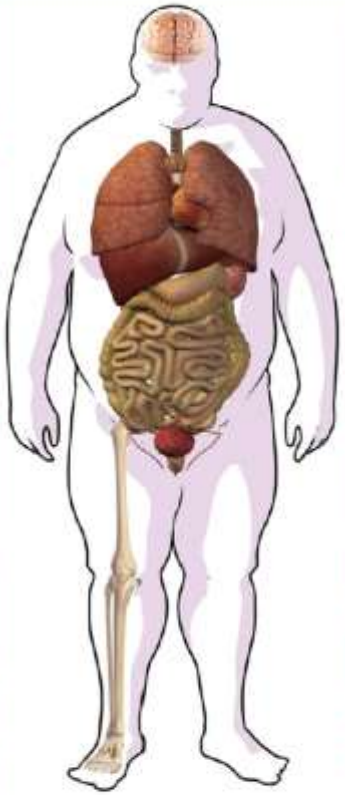
Preoperative assessment:
2 CARDIOVASCULAR STATUS



Bianchettin RG, et al. J Am Coll Cardiol. 2023;81(5):490–504.

Carron M, Safaee Fakhr B, Iepparіello G, Foletto M. Perioperative care of the obese patient. Br J Surg. 2020 Jan;107(2):e39-e55. doi: 10.1002/bjs.11447. PMID: 31903602.:

Fig. 2 Main obesity-related diseases[7–59]



Major depression (OR 1·21)
Bipolar disorder (OR 1·47)
Alzheimer's disease (RR 2·04); any dementia (RR 1·64)
Postoperative cognitive dysfunction (RR 1·27)

Hypertension (OR 4·8)
Heart failure (RR 1·90 M; RR 2·12 F)
Ischaemic heart disease (adjusted HR 1·64)
Myocardial infarction (adjusted HR 2·02)
Atrial fibrillation (adjusted HR 1·52 M; adjusted HR 1·46 F)

Diabetes mellitus (adjusted RR 7·28)
Dyslipidaemia (adjusted OR 2·2)

Metabolic syndrome
Stroke (OR 2·16)
Myocardial infarction (OR 2·01)
Atrial fibrillation (adjusted HR 1·52 M; adjusted HR 1·46 F)

Hypercoagulability
Stroke, myocardial infarction (OR 1·57)
Deep venous thrombosis (RR 2·50)
Pulmonary embolism (RR 2·21)

Non-alcoholic steatohepatitis (RR 4·6); cirrhosis (RR 4·1)

Renal disease (OR 1·38 hypertension; OR 1·4 type 2 diabetes)

Obstructive sleep apnoea (OR 6·0 for ↑10% bodyweight)
DMV (OR 3·39), DEI (OR 3·46) or both (OR 4·12)
Postoperative desaturation (OR 2·27)
Postoperative respiratory failure (OR 2·43)
Postoperative reintubation (OR 2·05)
Postoperative cardiac adverse events (OR 2·07)
Postoperative ICU transfer (OR 2·81)

Obesity hypoventilation syndrome
Cardiac event or cor pulmonale (OR 9)
Postoperative respiratory failure (OR 10·9)
Postoperative heart failure (OR 5·4)
Postoperative prolonged intubation (OR 3·1)
Postoperative ICU transfer (OR 10·9)

Respiratory disease
Respiratory complications with severe ↓FEV1 (OR 2·97)
Cardiovascular complications with severe ↓FEV1 (OR 2·02)

Asthma (RR 2·7)
Postoperative respiratory complications (OR 2·94)

Gastro-oesophageal reflux disease (OR 1·94)
Postoperative complications (OR 10·9)

Osteoarthritis (RR 1·12 hip; RR 1·25 knee)
Gout (RR 2·67)

Most of these are relevant to the anaesthetist because they are associated with an increased risk of perioperative complications. Ratio values are shown in parentheses. OR, odds ratio; RR, relative risk; HR, hazard ratio; DMV, difficult mask ventilation; DEI, difficult endotracheal intubation; FEV1, forced expiratory volume in 1 s. For more details see *Appendix S1* (supporting information).

Preoperative assessment:

Review Article

Preoperative preparation and premedication of bariatric surgical patient Varbanova M, Maggard B, Lenhardt R.* Preoperative preparation and premedication of bariatric surgical patient. Saudi J Anaesth 2022;16:287-98.

Preoperative assessment:

Review Article

Preoperative preparation and premedication of bariatric surgical patient

ABSTRACT

The prevalence of obesity has tripled worldwide over the past four decades. The United States has the highest rates of obesity, with 88% of the population being overweight and 36% obese. The UK has the sixth highest prevalence of obesity. The problem of obesity is not isolated to the developed world and has increasingly become an issue in the developing world as well. Obesity carries an increased risk of many serious diseases and health conditions, including type 2 diabetes, heart disease, stroke, sleep apnea, and certain cancers. Our ability to take care of this population safely throughout the perioperative period begins with a thorough and in-depth preoperative assessment and meticulous preparation. The preoperative assessment begins with being able to identify patients who suffer from obesity by using diagnostic criteria and, furthermore, being able to identify patients whose obesity is causing pathologic and physiologic changes. A detailed and thorough anesthesia assessment should be performed, and the anesthesia plan individualized and tailored to the specific patient's risk factors and comorbidities. The important components of the preoperative anesthesia assessment and patient preparation in the patient suffering from obesity include history and physical examination, airway assessment, medical comorbidities evaluation, functional status determination, risk assessment, preoperative testing, current weight loss medication, and review of any prior weight loss surgeries and their implications on the upcoming anesthetic. The preoperative evaluation of this population should occur with sufficient time before the planned operation to allow for modifications of the preoperative management without needing to delay surgery as the perioperative management of patients suffering from obesity presents significant practical and organizational challenges.

Preoperative assessment:

- Multi-disciplinary
- Comprehensive
- Identifies Co-morbidities
- Corrective Action initiated
- Ties in with Postoperative spectrum of care:
- From D-O-S DISCHARGE TO TERTIARY ICU

PREOXYGENATION: WE MUST IMPROVE!

HIGH FLOW EVEN WITH SIMPLE BAG & MASK

RAMPING

HIGH FLOW NASAL OXYGEN

PREOP NON INVASIVE VENTILATION

IS HFNO SUPERIOR?

BJA

British Journal of Anaesthesia, 130 (1): 103–110 (2023)

doi: 10.1016/j.bja.2021.12.011
Advance Access Publication Date: 11 January 2022
Respiration and the Airway

RESPIRATION AND THE AIRWAY

Apnoeic oxygenation in morbid obesity: a randomised controlled trial comparing facemask and high-flow nasal oxygen delivery

John Schutzer-Weissmann[1,2,*], Thomas Wojcikiewicz[1,3], Anil Karmali[1,4], Asta Lukosiute[1,5], Ruoyi Sun[1], Rafiq Kanji[1,5], Ahmed R. Ahmed[1,6], Sanjay Purkayastha[1,6], Stephen J. Brett[1,6] and Jonathan Cousins[1]

[1]Imperial College Healthcare NHS Trust, London, UK, [2]The Royal Marsden Hospital NHS Foundation Trust, London, UK, [3]Royal Surrey NHS Foundation Trust, Guildford, UK, [4]London North West University Healthcare NHS Trust, Harrow, UK, [5]Guy's and St Thomas' NHS Foundation Trust, London, UK and [6]Department of Surgery and Cancer, Imperial College London, UK

*Corresponding author. E-mail: j.weissmann@nhs.net

IS HFNO SUPERIOR?

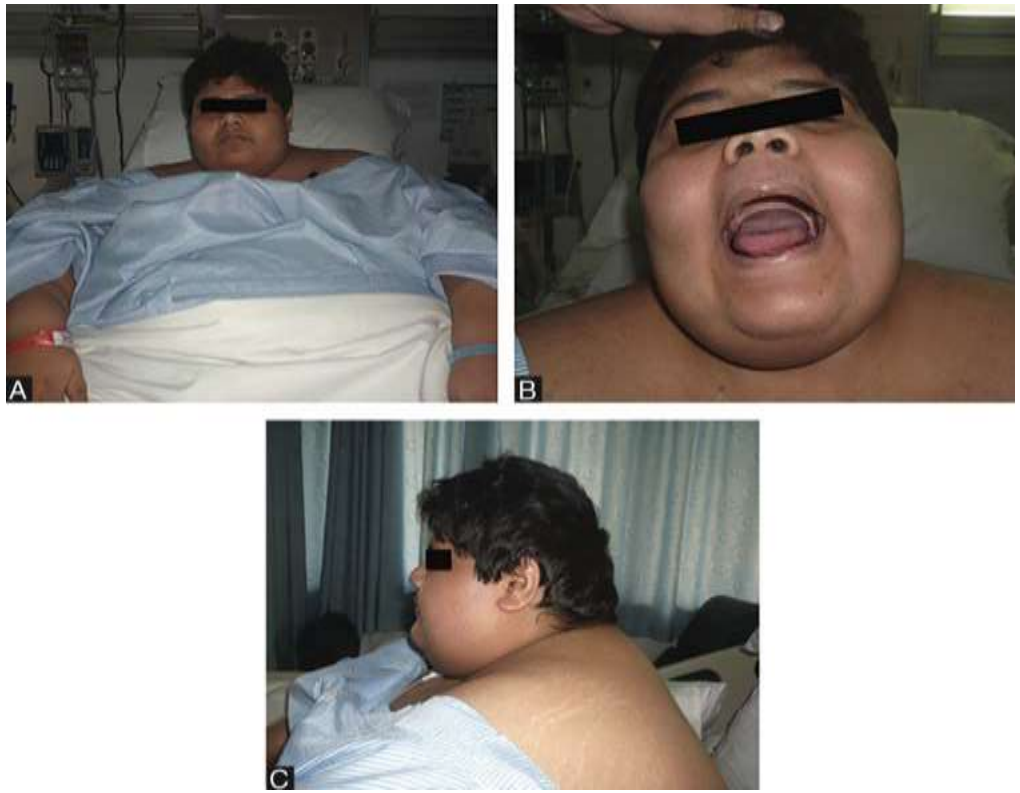
Methods: Morbidly obese patients undergoing bariatric surgery were randomly allocated to receive either high-flow nasal (70 L min^{-1}) or facemask (15 L min^{-1}) oxygen. After induction of anaesthesia, the patients were apnoeic for 18 min or until peripheral oxygen saturation decreased to 92%.

Results: Eighty patients were studied (41 High-Flow Nasal Oxygen, 39 Facemask). The median apnoea time was 18 min in both the High-Flow Nasal Oxygen (IQR 18–18 min) and the Facemask (inter-quartile range [IQR], 4.1–18 min) groups. Five patients in the High-Flow Nasal Oxygen group and 14 patients in the Facemask group desaturated to 92% within 18 min. The risk of desaturation was significantly lower in the High-Flow Nasal Oxygen group (hazard ratio=0.27; 95% confidence interval [CI], 0.11–0.65; P=0.007).

Conclusions: In experienced hands, apnoeic oxygenation is possible in morbidly obese patients, and oxygen desaturation did not occur for 18 min in the majority of patients, whether oxygen delivery was high-flow nasal or low-flow facemask. High-flow nasal oxygen may reduce desaturation risk compared with facemask oxygen. Desaturation risk is a more clinically relevant outcome than duration of apnoea. Individual physiological factors are likely to be the primary determinant of risk rather than method of oxygen delivery.

Clinical trial registration: NCT03428256.

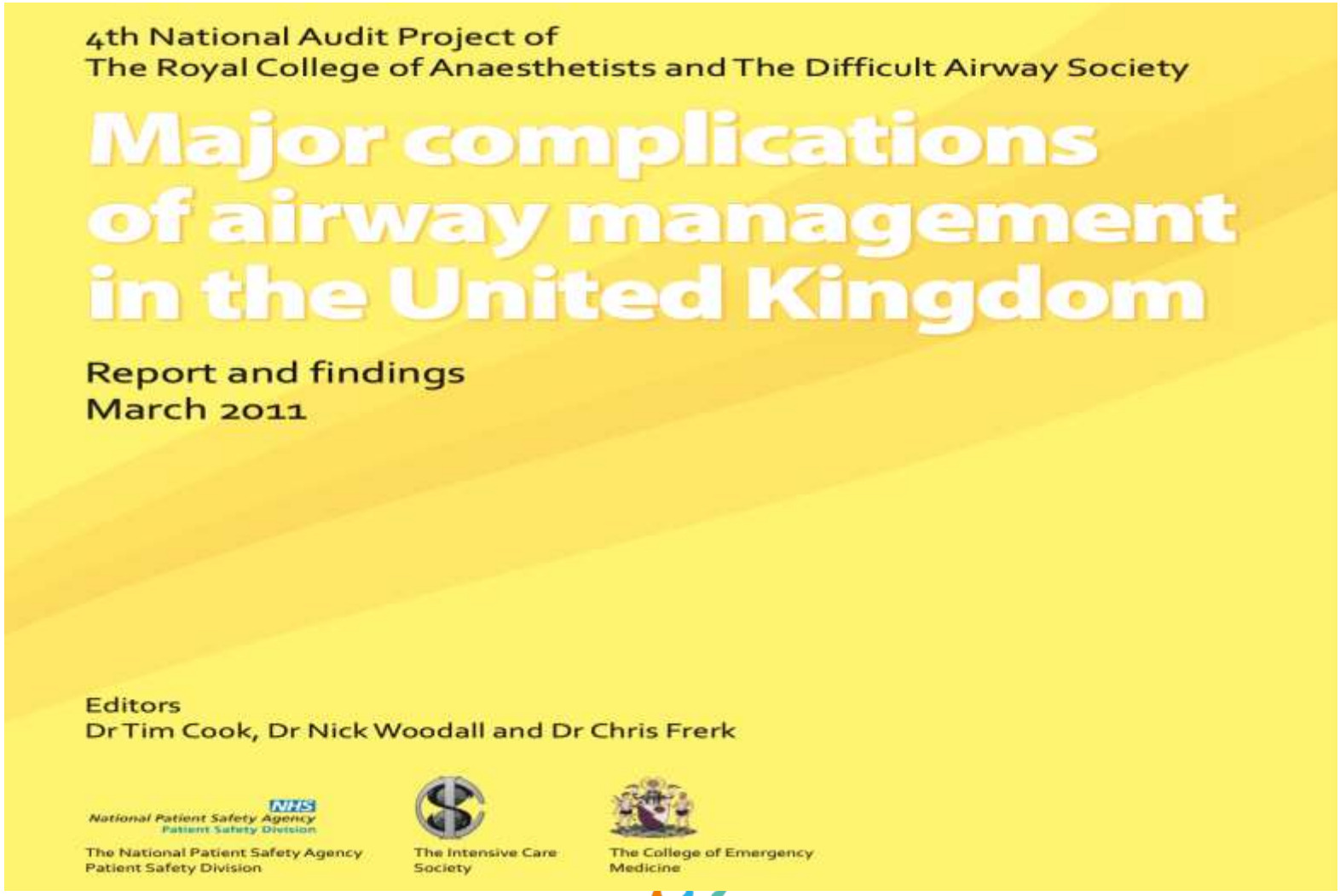
IS > BMI ASSOCIATED WITH DIFFICULTY?



611KG GLIDESCOPE

Terkawi, Abdullah S. M.D.[1,2,]; Rafiq, Mahmood[1]; Algadaan, Reaad[1]; Ur Rehman, Insha[1]; Doais, Khaled S.[1]; Durieux, Marcel E.[2]; AlSohaibani, Mazen[1]. General anesthesia for the heaviest man in the world. Saudi Journal of Anaesthesia 8(Suppl 1):p S101-S104, November 2014. | DOI: 10.4103/1658-354X.144087

NAP4 HAS A WHOLE CHAPTER ON OBESITY!



NAP4 OBESITY COMPLICATIONS

- 184 reports received, 77 were obese
- 133 reports of anaesthesia, 53 were obese

Deaths	16	(4)
Brain damage	3	(1)
Emergency surgical airways	25	(19)
ICU admission or prolongation of stay	33	(29)

AIRWAY METHODOLOGY`

“UNIVERSAL VIDEOLARYNGOSCOPY”

ROLE FOR SGA?

Airway management for COVID-19: a move towards universal videolaryngoscope?

*Audrey De Jong, Emmanuel Pardo, Amélie Rolle, Sandra Bodin-Lario, Yvan Pouzeratte, *Samir Jaber*

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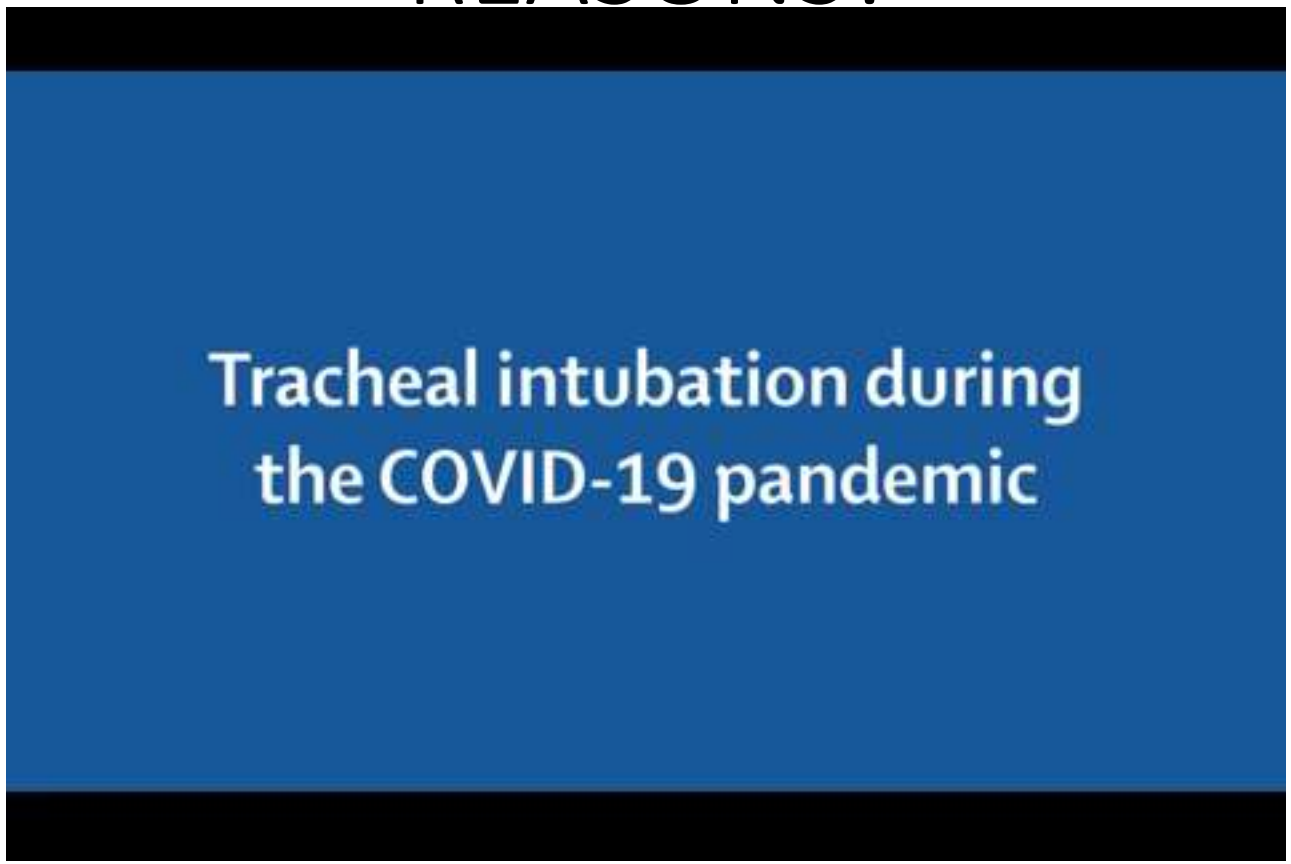
Intensive Care Unit and Transplantation, Critical Care and Anesthesia Department, Hôpital Saint-Éloi, Montpellier University Hospital, PhyMed Exp INSERM U1046, 34090 Montpellier, France (ADJ, AR, SB-L, YP, SJ); and Intensive Care Unit, Critical Care and Anesthesia Department, Hôpital Saint-Antoine, APHP, Sorbonne Université, Paris, France (EP)

Airway management for COVID-19: a move towards universal videolaryngoscope?
Crossref DOI link: https://doi.org/10.1016/S2213-2600(20)30221-6
The Lancet: 2020-06

UNIVERSAL VIDEOLARYNGOSCOPY- MANY REASONS!



UNIVERSAL VIDEOLARYNGOSCOPY

BJA

British Journal of Anaesthesia, 120(1): 173–180 (2018)

doi: 10.1016/j.bja.2017.11.014
Advance Access Publication Date: 21 November 2017
Respiration and the Airway

RESPIRATION AND THE AIRWAY

Universal videolaryngoscopy: a structured approach to conversion to videolaryngoscopy for all intubations in an anaesthetic and intensive care department

T.M. Cook[1,2,*], N.J. Boniface[1], C. Seller[1], J. Hughes[1], C. Damen[1], L. MacDonald[1] and F.E. Kelly[1]

[1]Royal United Hospitals NHS Foundation Trust, Bath, Combe Park, Bath BA13NG, UK and [2]School of Clinical Sciences, University of Bristol, Bristol, UK

*Corresponding author. E-mail: timcook007@gmail.com

Editorial about this article by R.M. Cooper, BJA 2018:120:13-15, doi: 10.1016/j.bja.2017.11.017.

ROLE FOR SGA?

Cochrane Library

Cochrane Database of Systematic Reviews

Supraglottic airway devices versus tracheal intubation for airway management during general anaesthesia in obese patients

Cochrane Systematic Review - **Intervention** | Version published: 09 September 2013

Am score 9 View article information

Amanda Nicholson | Tim M Cook | Andrew F Smith | Sharon R Lewis | Stephanie S Reed

View authors' declarations of interest

ROLE FOR SGA?

Authors' conclusions

We have inadequate information to draw conclusions about safety, and we can only comment on one design of SAD (the PLMA) in obese patients. We conclude that during routine and laparoscopic surgery, PLMAs may take a few seconds longer to insert, but this is unlikely to be a matter of clinical importance. A failure rate of 3% to 5% can be anticipated in obese patients. However, once fitted, PLMAs provide at least as good oxygenation, with the caveat that the leak fraction may increase, although in the included studies, this did not affect ventilation. We found significant improvement in oxygenation during and after surgery, indicating better pulmonary performance of the PLMA, and reduced postoperative coughing, suggesting better recovery for patients.

ROLE FOR SGA?

IF THE SGA FEATURES AS A RESCUE OF CHOICE IN MANY DIFFICULT INTUBATION PROTOCOLS THEN SURELY WE HAVE TO BE FAMILIAR WITH IT'S USE IN ELECTIVE SCENARIO FOR PATIENTS WITH OBESITY

WHICH SGA?

Sultana et al. International Anesthesiology Clinics (2020) 58:3

Table 1

Classification of supraglottic airways (SGA).

SGA	Generation	Gastric Drainage	Intubation conduit
LMA Classic	1st	No	No
LMA Unique	1st	No	No
Ambu AuraOnce	1st	No	No
King LT	1st	No	No
LMA FastTrach	1st	No	Yes
AirQ	1st	No	Yes
LMA ProSeal	2nd	Yes	No
LMA Supreme	2nd	Yes	No
LMA Protector	2nd	Yes	Yes
Ambu Auragain	2nd	Yes	Yes
King LTS	2nd	Yes	No
AirQ Blocker	2nd	Yes	Yes
i-Gel	2nd	Yes	Yes
Baska	2nd	Yes	No
LMA Gastro	2nd	Yes*(14 mm)	No

*LMA Gastro admits a gastroscope or surgical stomach bougie.

ANESTHESIA TECHNIQUE:OFA

Obesity Surgery
https://doi.org/10.1007/s11695-023-06584-5

ORIGINAL CONTRIBUTIONS

The Performance of Opioid-Free Anesthesia for Bariatric Surgery in Clinical Practice

Stefan Ulbing[1,2] · Lukas Infanger[1] · Edith Fleischmann[1] · Gerhard Prager[3] · Thomas Hamp[1]

Received: 2 December 2022 / Revised: 31 March 2023 / Accepted: 5 April 2023

Abstract

Purpose Opioid-free anesthesia (OFA) is an alternative to conventional opioid-based anesthesia (OBA) in patients undergoing bariatric surgery. Several small studies and a meta-analysis have suggested advantages of OFA for bariatric surgery, but current evidence is still contradictory, and a universally accepted concept has not yet been established. The purpose of this study was to determine whether patients undergoing bariatric surgery experience less postoperative pain and better postoperative recovery when anesthetized with an OFA regimen than with an OBA regimen.

Materials and Methods This prospective observational cohort study, conducted between October 2020 and July 2021, compared patients receiving OFA with patients receiving OBA. Patients were visited 24 and 48 h after the surgical procedure and asked about their postoperative pain using the visual analogue scale (VAS). Additionally, the quality of recovery-40 questionnaire (QoR-40) and the postoperative opioid requirements were recorded.

Results Ninety-nine patients were included and analyzed in this study (OFA: $N=50$; OBA: $N=49$). The OFA cohort exhibited less postoperative pain than the OBA cohort within 24 h (VAS median [interquartile range (IQR)]: 2.2 [1–4.4] vs. 4.1 [2–6.5]; $P \leq 0.001$) and 48 h (VAS median [IQR]: 1.9 [0.4–4.1] vs. 3.1 [1.4–5.8]; $P \leq 0.001$) postoperatively. Additionally, the OFA cohort had higher QoR-40 scores and required less opioid therapy postoperatively.

Conclusion Based on our results the use of OFA for bariatric surgery results in less pain, reduced opioid requirements, and improved postoperative recovery—adding additional evidence regarding the use of OFA in everyday clinical practice.

Keywords Bariatric surgery · Opioid-free anesthesia · Postoperative pain · Clinical practice

British Journal of Anaesthesia **112** (5): 906–11 (2014)
Advance Access publication 18 February 2014 · doi:10.1093/bja/aet551

BJA

Opioid-free total intravenous anaesthesia reduces postoperative nausea and vomiting in bariatric surgery beyond triple prophylaxis

P. Ziemann-Gimmel*, A. A. Goldfarb, J. Koppman and R. T. Marema

Coastal Anesthesiology, 100 Whetstone Place #310, St Augustine, FL 32086, USA
* Corresponding author. E-mail: pziemann@yahoo.com

Editor's key points

- Bariatric surgery is commonly associated with postoperative nausea and vomiting (PONV).
- The authors compared PONV among bariatric surgery patients randomized to opioid-free total i.v. anaesthesia (TIVA) or volatile-opioid anaesthesia.
- The incidence and severity of PONV were significantly lower in the opioid-free TIVA group.

Background. Patients undergoing bariatric surgery are at high risk of postoperative nausea and vomiting (PONV). Despite triple PONV prophylaxis, up to 42.7% of patients require antiemetic rescue medication (AERM).

Methods. This prospective, randomized study was conducted from November 2011 to October 2012. In the Classic group ($n=59$), patients underwent general anaesthesia with volatile anaesthetics and opioids. In the Total i.v. anaesthesia (TIVA) group ($n=60$), patients underwent opioid-free TIVA with propofol, ketamine, and dexmedetomidine. The severity of PONV was assessed using a Likert scale (none, mild, moderate, and severe).

Results. Patients in both groups had similar clinical characteristics, surgical procedure, and PONV risk scores and required similar amounts of postoperative opioid. In the Classic group, 22 patients (37.3%) reported PONV compared with 12 patients (20.0%) in the TIVA group [$P=0.04$; risk 1.27 (1.01–1.61)]. The absolute risk reduction was 17.3% (number-needed-to-treat=6). The severity of nausea was statistically different in both groups ($P=0.02$). The severity of PONV was significantly worse in the Classic group. There was no difference either in the number of patients requiring AERM in the postoperative period or in the number of AERM doses required.

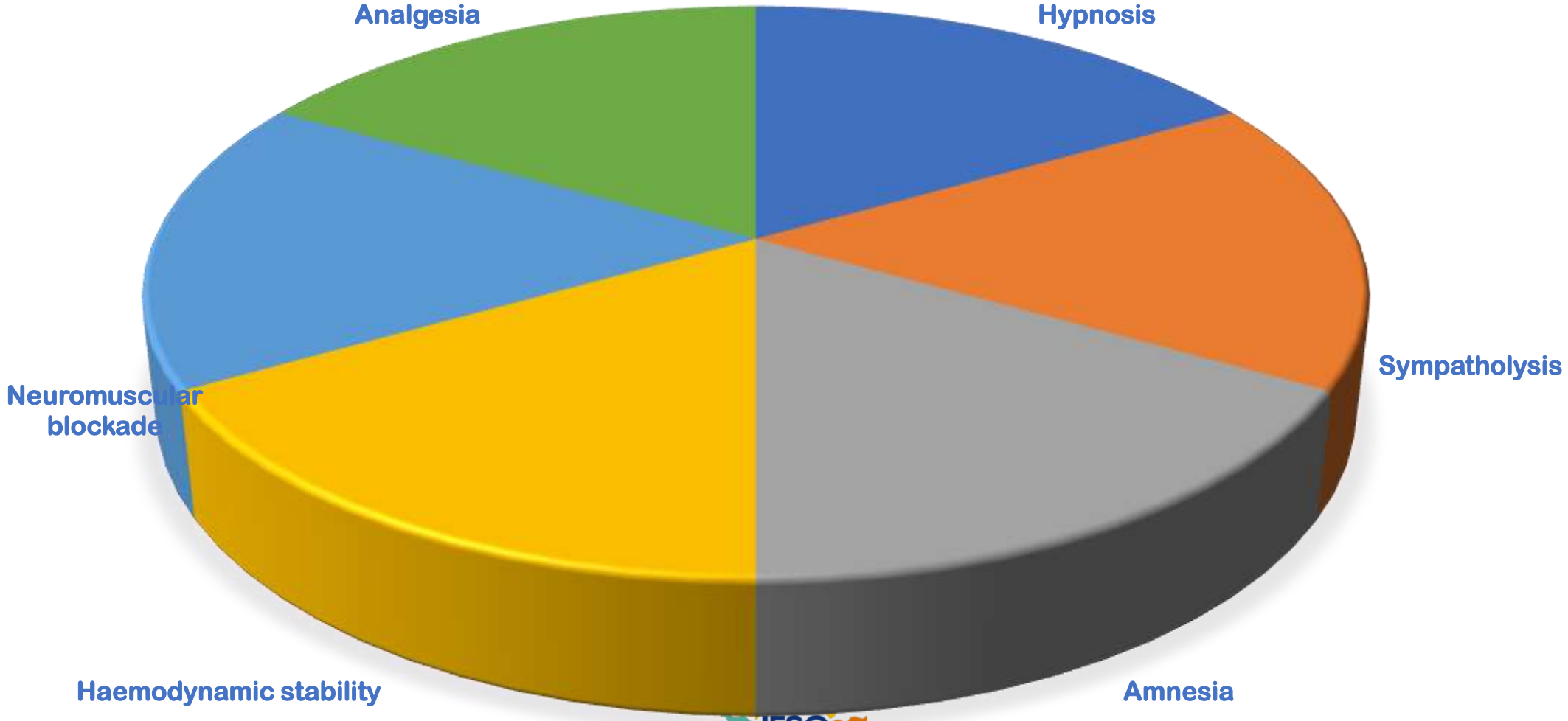
Conclusions. This prospective randomized study demonstrates that opioid-free TIVA is associated with a large reduction in relative risk of PONV compared with balanced anaesthesia.

Clinical trial registration. NCT 01449708 (ClinicalTrials.gov).

Keywords: anaesthetics i.v., propofol; analgesic techniques; obesity; PONV; vomiting, nausea, anaesthetic factors

Accepted for publication: 8 October 2013

Components of Opioid Free Anesthesia



A METHOD FOR OFA WITH TIVA TCI*

- Dexmedetomidine 2 mcg/ml (TCI Hannivoort** now available)
- Ketamine 1mg/ml
- lidocaine 10mg/ml
- Into the same 50 ml syringe
- Concurrent propofol TCI with your preferred program (both drug's targets will appear reduced)
- Profound NMBA
- Effective reversal of NMBA

*after Mulier: 2017 (opioid free anesthesia mixture) (Mulimix) - keep it simple multimodal anesthesia developed by Jan Mulier MD PhD & Igor Zadonsky www.publicationslist.org/jan.mulier

**Hannivoort LN, Eleveld DJ, Proost JH, Reyntjens KM, Absalom AR, Vereecke HE, Struys MM. Development of an Optimized Pharmacokinetic Model of Dexmedetomidine Using Target-controlled Infusion in Healthy Volunteers. Anesthesiology. 2015 Aug;123(2):357-67. doi: 10.1097/ALN.0000000000000740. PMID: 26068206.

SUGAMMADEX

Anaesthesia
Journal of the Association of Anaesthetists of Great Britain and Ireland

Anaesthesia, 2011, **66**, pages 721–725 doi:10.1111/j.1365-2044.2011.06782.x

ORIGINAL ARTICLE

Ideal versus corrected body weight for dosage of sugammadex in morbidly obese patients

P. Van Lancker,[1] B. Dillemans,[2] T. Bogaert,[3] J. P. Mulier,[1] M. De Kock[4] and M. Haspeslagh[5]

1 Specialist Anaesthetist, 3 Resident Anaesthetist, Department of Anaesthesia, 2 Specialist Surgeon, Department of Surgery, 5 Biostatistics and Clinical Research Associate, AZ Sint-Jan Brugge-Oostende AV, Belgium
4 Professor of Anaesthesia, Department of Anaesthesia, UCL Saint-Luc, Woluwe, Belgium

Summary

To date, the dosing of sugammadex is based on real body weight without taking fat content into account. We compared the reversal of profound rocuronium-induced neuromuscular blockade in morbidly obese patients using doses of sugammadex based on four different weight corrections. One hundred morbidly obese patients, scheduled for laparoscopic bariatric surgery under propofol-sufentanil anaesthesia, were randomly assigned four groups: ideal body weight; ideal body weight + 20%; ideal body weight + 40%; and real body weight. Patients received sugammadex 2 $mg.kg^{-1}$, when adductor pollicis monitoring showed two responses. The primary endpoint was full decurarisation. Secondary endpoints were the ability to get into bed independently on arrival to the post-anaesthetic care unit and clinical signs of residual paralysis. There was no residual paralysis in any patient. Morbidly obese patients can safely be decurarised from rocuronium-induced neuromuscular blockade T1–T2 with sugammadex dosed at 2 $mg.kg^{-1}$ ideal body weight + 40% ($p < 0.0001$).

Correspondence to: P. Van Lancker
Email: philippe.vanlancker@azsintjan.be
Accepted: 19 April 2011

Grant, Michael, Gibbons, Melinda, MD, MSHS, Ko, Clifford, MD, MS, Wick, Elizabeth, et al. (2019). Evidence Review Conducted for the Agency for Healthcare Research and Quality Safety Program for Improving Surgical Care and Recovery: Focus on Anesthesiology for Bariatric Surgery. Anesthesia & Analgesia, 129, 51-60. https://doi.org/10.1213/ANE.0000000000003696

SPECIAL ARTICLE

Evidence Review Conducted for the Agency for Healthcare Research and Quality Safety Program for Improving Surgical Care and Recovery: Focus on Anesthesiology for Bariatric Surgery

Michael C. Grant, MD,*† Melinda M. Gibbons, MD, MSHS,‡ Clifford Y. Ko, MD, MS, MSHS,‡§
Elizabeth C. Wick, MD,† Maxime Cannesson, MD, PhD,‖
Michael J. Scott, MBChB, FRCP, FRCA, FFICM,¶# Matthew D. McEvoy, MD,**
Adam B. King, MD,** and Christopher L. Wu, MD†††‡‡

Recommendations

Intervention	Recommendations
Immediate preoperative	
Reduced fasting and carbohydrate loading	Reduced preoperative fasting (solids until 6 h before induction and clear liquids until 2 h before induction) for elective procedures
Multimodal preanesthesia medication	A preoperative multimodal strategy including acetaminophen, COX-2 inhibitors, and gabapentanoids may decrease postoperative pain and opioid consumption after GYN surgery.
Intraoperative	
Standard intraoperative anesthesia pathway	A standardized evidence-based perioperative anesthetic pathway is essential for every surgical ERAS protocol, and the intraoperative anesthetic should be tailored to facilitating a rapid awakening after completion of the surgical procedure.
Protective ventilation strategy	An intraoperative protective ventilation strategy of lower tidal volumes may result in improved clinical outcomes (respiratory failure, pulmonary infection).
Fluids/goal-directed fluid therapy	Intraoperative fluid management should aim to minimize fluid and maintain euvolemia. When available, GDFT is recommended for high-risk patients or when there is blood.
Postoperative nausea and vomiting prophylaxis	Use of a multimodal antiemetic regimen for the prevention and treatment of PONV is recommended in patients undergoing surgery.
Postoperative	
Standard postoperative multimodal analgesic regimen	A multimodal analgesic approach with multiple nonopioid analgesics agents and techniques are used in an attempt to minimize the use of and side effects from opioids.

Abbreviations: AHRQ, Agency for Healthcare Research and Quality; COX-2, cyclo-oxygenase-2; ERAS, enhanced recovery after surgery; GDFT, goal-directed fluid therapy; GYN, gynecological; PONV, postoperative nausea and vomiting.

ANESTHESIA & ANALGESIA

CONCLUSION:

The clinical care and anesthesia techniques for patients affected by obesity have evolved over the last >10 years: this is the result of clinical research by colleagues from all over the world. It is our duty and indeed pleasure to remain fully appraised of updates and apply the available knowledge, technology and pharmacology for the benefit of our patients.

Bibliography:

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