



THE YIN AND YANG OF PERIOPERATIVE MEDICINE

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The New England Journal of Medicine
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Kim A. Eagle, M.D.

The past four decades have seen remarkable progress in establishing best perioperative practices.¹ One of the challenges in improving perioperative care, however, is rooted in the interplay of the myriad interdependent, often opposing, mechanisms that contribute to perioperative myocardial infarction — excess bleeding, dramatic fluid shifts, unrelenting tachycardia, myocardial stress with fixed coronary obstruction, profound hypotension or hypertension, coronary plaque rupture, and coronary spasm. Strategies that mitigate one mechanism may lead to another. Devereaux et al. now report on two such strategies in the Journal — the perioperative use of aspirin and the perioperative use of clonidine in patients undergoing noncardiac surgery.^{2,3}

The authors report the results of the Perioperative Ischemic Evaluation 2 (POISE-2) trial, which was designed to evaluate separately the efficacy and safety of low-dose clonidine versus placebo and low-dose aspirin versus placebo in 10,010 patients with, or at risk for, atherosclerotic disease. Both in patients who had not been taking aspirin before the study and in those who were already on an aspirin regimen (the latter referred to as the continuation stratum), aspirin had no significant effect on the composite primary end point of death or nonfatal myocardial infarction at 30 days. Major bleeding was more common in the aspirin group than in the placebo group (4.6% vs. 3.7%; hazard ratio, 1.23; 95% confidence interval [CI], 1.01 to 1.49; $P = 0.04$). Overall, it is likely that aspirin prevented some perioperative myocardial infarctions through thrombus inhibition, but this may have been at the expense of bleeding and other myocardial infarctions induced by a mismatch between the supply of and demand for oxygen. It would be important to

investigate the temporal relationship between major bleeding and myocardial infarction. Importantly, among 4382 patients in the continuation stratum, there was no “rebound” increase in thrombotic events due to temporary perioperative interruption of aspirin. All the findings applied regardless of whether patients had a history of vascular disease or no history of vascular disease.

On balance, the authors provide cogent evidence against the use of aspirin perioperatively in patients with and those without pre-existing vascular disease. Nonetheless, important questions linger. Although a substantial proportion of patients in the POISE-2 trial had some form of vascular disease, only 4.3% of the patients in the aspirin group had undergone prior coronary stenting. The safety of aspirin withdrawal in those who have previously undergone percutaneous coronary interventions may not be established by the POISE-2 trial. Furthermore, the authors excluded patients who had received a bare-metal or drug-eluting coronary stent less than 6 weeks and less than 1 year, respectively, before surgery. Perioperative aspirin may prevent myocardial infarction and stent thrombosis in patients with recent percutaneous coronary interventions and should not be withdrawn prematurely.⁴

The use of low-dose clonidine, which blunts sympathetic outflow, would seem to be a beneficial addition to the armamentarium of the perioperative clinician. In the POISE-2 trial, however, clonidine did not significantly reduce the risk of the primary outcome and, as compared with placebo, was associated with higher rates of clinically important hypotension (47.6% vs. 37.1%; hazard ratio, 1.32; 95% CI, 1.24 to 1.40; $P < 0.001$) and nonfatal cardiac arrest (0.3% vs. 0.1%; hazard ratio, 3.20; 95% CI, 1.17 to 8.73; $P = 0.02$). Given these harms and the neutral effect on the primary outcome, clonidine should be avoided perioperatively. The prevalence of clinically important hypotension in both the clonidine group and the placebo group, however, bears scrutiny and could reflect the intensity of monitoring in the

POISE-2 trial. Although one could even question the relevance of the results of the aspirin study in a trial in which so many patients had clinically important hypotension (which was an independent predictor of subsequent myocardial infarction), the authors report that there was no significant effect of clonidine on the results of the comparison of aspirin with placebo. Furthermore, the effect of metoprolol succinate in the POISE trial⁵ in reducing the risk of myocardial infarction is contradictory to the deleterious effect of clonidine in the POISE-2 trial. Although the blunting of sympathetic outflow produced by clonidine may be fundamentally different from that produced by beta-blockers, the results of the POISE and POISE-2 trials taken together offer credibility to a calculated strategy of decreasing heart rate while avoiding perioperative hypotension.

The perioperative medicine community welcomes the results of the POISE-2 trial, while realizing that there are still many areas of uncertainty, including best practice in those who have undergone any percutaneous coronary intervention. It is not surprising that medical therapies directed at favorably modifying one mechanism causing perioperative myocardial infarction have the potential to increase risk through augmentation of a different pathway. Aspirin may reduce coronary thrombosis at the expense of excess bleeding; clonidine may reduce hypertensive swings only to be countered by clinically important hypotension. As observed by Chinese philosophers, the whole is made up of the yin and yang — complementary, interdependent, and conceptually opposing entities that comprise a whole. Future progress in perioperative medicine may depend on the implementation of strategies that successfully address one pathophysiological mechanism of perioperative myocardial infarction without being limited by another. *Disclosure forms provided by the authors are available with the full text of this article at NEJM.org.*

BREC REVIEW OF SCIENTIFIC COMPONENTS OF PROTOCOLS

After BREC confirmed that the review process they conduct includes scientific aspects it has become unnecessary to subject students' protocols to within schools external review process. In view of this, forthwith no School should unnecessarily delay submission of protocols to BREC. Supervisors and Academic Research Leaders must please note their role in this process.

Below is an extract from the UKZN DVC's report regarding this matter:

- "It is also not correct that Heads of Discipline sign off on Postgraduate matters, the AL Research in the School has that mandate. This should not be added as an additional step in the process as it will cause unnecessary delays and additional work for people which is not necessary. College Reorganisation was about simplifications of processes, and delegation of authority to individuals.
- The Service Level Agreements for Postgraduate processes was completed last year, and confirmed the process is for supervisors to sign off, and AL Research to sign off. No additional steps were necessary or required. By cc of this mail, I am requesting Fanie to circulate the SLA agreement vis PG processes.
- If a few supervisors are not doing their work, then we need to put in place remedial interventions to support them to achieve success. We cannot penalise all supervisors for the poor work of a few. The process has to be streamlined.
- There is no issue with academics and students within the disciplines presenting their work to each other, and receiving inputs on that work to improve the quality. This is normal academic processes, and to be encouraged. However, this should not be an approval step, requiring revisions and representation, but is a consultative input to improve the work of the students. The approval is generated at BREC.
- Please can all schools confirm that there is NO separate "peer" review process for proposals within the Schools prior to going to BREC, where the full scientific review is conducted."

This serves to create awareness of the processes and to emphasizes supervisors' accountability.

AIRWAVES CONGRESS

Date: 20 - 23 June 2014

Venue: Gateway Congress

To register and for more information

visit: www.airwavescongress.co.za

Email: info@airwavescongress.co.za

Tel: 031 568 1205 or 0 31 563 6804

NEW PUBLICATIONS

Biccard B, Rodseth R. Taking an idea to a research protocol. South Afr J Anaesth Analg 2014; 20(1):14-18.

Biccard B. Myocardial injury after non-cardiac surgery: a new clinical entity. South Afr J Anaesth Analg 2014; 20(1); 24

Farina Z. Time to face the booth? 'Unfriending' IV fluids. Where are we currently with fluid administration in anaesthesia and critical care? South Afr J Anaesth Analg 2014; 20(1):36-38.

Von Rahden RP. The benefits and risks of vasoactive agents. South Afr J Anaesth Analg 2014; 20(1):40-42.

Hodgson E. Perioperative cardiac care - not just systolic. South Afr J Anaesth Analg 2014; 20(1):48-51.

Von Rahden RP. Intraoperative point-of-care testing. South Afr J Anaesth Analg 2014; 20(1):62-64.

Muckart D, Gopalan D. Palliative care: Definition of euthanasia. South Afr Med J 2014; 104(4):259-260.

VACANCIES

Medical officer post

Ref No: RKKM8/2014

Center: R K Khan Hospital

Grade: 1/2

Closing date: 05/05/2014

Contact: Mrs Kisten - 031 459 626

Saroja.Kisten@kznhealth.gov.za or

Dr S Tarr - 083 786 6288

saleemtarr@yahoo.com

Medical officer posts X2

Center: Addington Hospital

Grade: 1&2

Closing date: 29/04/2014

Contact: Dr U Singh on
0314605116

Medical officer post

Ref No: MO01/2014

Center: ST Aidans

Grade: 1, 2 Or 3

Closing date: 30/04/2014

Contact: Dr Ramcharan on
0828539339

BEST PRACTICE IN ANAESTHESIA WORKSHOP

Roche Products cordially invites all anaesthetists to attend the: "BPIA Workshop"

Date: 25th May 2014

Venue: Sica's Guest House
19 Owen Ave, Berea, Mayville
031-261-2768

Time: 7:30 - 13:00

Email: Karen.pretorius@roche.com

Tel: 0825712229

RSVP on/before Friday, 16 May 2014

Abridged Program

Physician heal thy-self - **Dr Oettle**
Lessons Learned from Transplantation - **Dr Beeton**
Impact of Anaesthesia on accelerated recovery - **Dr Radford**

APPLICATION FORM FOR STUDY LEAVE WITHIN SA

PLEASE NOTE: The Application form for study leave within SA is now available on the department website. This form needs to be completed and submitted 3 months in advance. For leave notice please contact Hannah for leave applications.



COLLEGE OF HEALTH SCIENCES QUIZ

Date: Thursday, 22 May 2014

Time: 16:30

Venue: Exam Hall, 6th Floor, Main Building Nelson R Mandela School of Medicine

RSVP essential: by 12 May 2014

Refreshments will be provided.

Email: nzamah@ukzn.ac.za

Entrants would need to consist of a team of 8 individuals. Each team should have a fun, creative name. Please dress up according to the name of your team.

NB: Please email Natasha team names and team members and she will coordinate the department teams and forward them to Mary Ann.

PIETERMARITZBURG DEPARTMENT OF ANAESTHESIA, CRITICAL CARE AND PAIN MANAGEMENT.

Please save the date for the annual Pietermaritzburg Critical Care Symposium, to be offered in conjunction with the Critical Care Society of SA.

Date: 24 May 2014

Time: 08h00 - 14h00

Venue: Protea Hotel, Hilton, KZN

Program: 6 Lectures (5 critical care topics and one ethics)

Details of the program will be circulated soon.

UPCOMING EVENTS

STAFFING COMMITTEE

Date: 06 May 2014

Time: 15h00

Venue: IALCH (Seminar room)

CONSULTANT MEETING

Date: 06 May 2014

Time: 16h30

Venue: IALCH (Seminar room)

COMBINED ACADEMIC

Date: 23 May 2014

Time: 07h30

Venue: L5 Lecture Theatre, MS

● RESEARCH MEETING

Registrar: Verwey S

Registrar: Moodley S

● CLINICAL FORUM

Topic: General

Consultant: Naidoo T

Topic: Cardiac

Consultant: Drummond L

● REGISTRAR MEETING

CODEWORD

F	A	U
L	E	H
L	T	H

How many words of four letters or more can you make from the letters shown here? In making a word, each letter may be used once only. Each word must contain the center letter, and there must be at least one nine-letter word in the list. No plurals or verb forms ending in "s", no words with initial capital, no hyphenated words.

Target:

Good-12, Very Good 18; Excellent 24 (or more)

(Answers on next page)

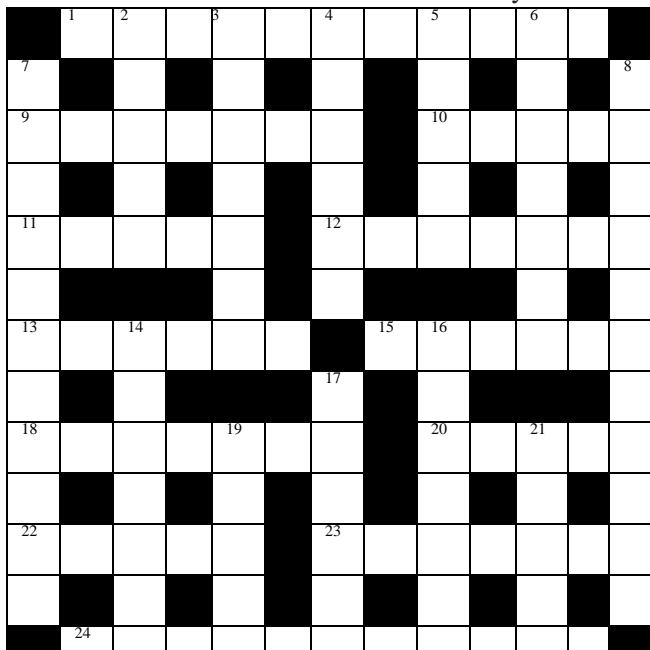
CROSSWORD

Across

- Bet that could win a lot of money for a miser (11)
- Prayer for one who may supply money to us (7)
- Publication that is stopped (5)
- A Rabbit-hole is pointless for a donkey! (5)
- The crime of a receiver (7)
- Minded being watched (6)
- A cheap combination of brave and tough (6)
- Regular soldiers assume it (7)
- Crow-bar? (5)
- A quarter of a pound (5)
- Nothing to fasten? That's what you think! (7)
- How a Fisherman maintained the connection? (4,3,4)

Down

- It should disband before it comes to light (5)
- Liberate one soul in torment (7)
- Possibly push to a conclusion (6)
- A fool disposed to be distant (5)
- Fundamental shifting in cargo (7)
- An unlucky boxer may get it in the neck (6,5)
- Arousing one's curiosity, though resenting it, perhaps (11)
- Offensive rumour about an upcoming doctor (7)
- Biased to some extent (7)
- Yet such talkers may not be on the level! (6)
- Acknowledgement and admitted (5)
- An astronomical figure (5)



WHAT TO WATCH



SON OF GOD



Genre: Drama

Running time: 2hrs 18min

Starring: Amber Rose Revah, Diogo Morgado and Roma Downey.

Directed by: Christopher Spencer

Produced by: Mark Burnett

Synopsis:

This film brings the story of Jesus' life to audiences through compelling cinematic storytelling that is both powerful and inspirational. Told with the scope and scale of an action epic, the film features powerful performances, exotic locales, dazzling visual effects and a rich orchestral score from Oscar®-winner Hans Zimmer. Portuguese actor Diogo Morgado portrays the role of Jesus as the film spans from his humble birth through his teachings, crucifixion and ultimate resurrection.

LAUGHING GAS

A lawyer was just waking up from anaesthesia after surgery, and his wife was sitting by his side. His eyes fluttered open and he said,

"You're beautiful!" and then he fell asleep again. His wife had never heard him say that so she stayed by his side. A couple of minutes later, his eyes fluttered open and he said, "You're cute!" Well, the wife was disappointed because instead of "beautiful," it was "cute." She asked, "What happened to 'beautiful'?" His reply was "The drugs are wearing off!"

Entertainment

Reviews:

Album Review:



Toni/ Babyface Braxton "Love, Marriage & divorce"

Those infuriated, angst-filled and downright awkward moments are deftly examined in the first-ever collaboration album of singer, songwriter and super-producer Kenny "Babyface" Edmonds and his former protege-turned-pop and reality show diva, Toni Braxton, entitled *Love, Marriage & Divorce*. If you remember how flawlessly these two melded together in the 1990s (1992's *Boomerang* soundtrack and forward), then you'll also enjoy hearing the nimble chemistry they recreate, even if you aren't *this close* to booking an appearance on *Divorce Court*.

Outside of the studio, there have been three marriages and three divorces between the two of them, with Ms. Braxton contently single and Babyface engaged to marry for yet a third time, so it's a given that the 11 featured tracks (seven of them co-written by Toni) contain authentic glimpses into multiple stages of legalized or otherwise long-term relationships. Tumultuous personal lives aside, Face and Toni's musical marriage is a thriving one, evidenced by the set's first hit single, "Hurt You," where the soap opera-recalling intro and reciprocal shots fired (ugly words, infidelity) turn into watery pleas for another try: "Can we start over again?" Braxton husks out against a backdrop of Babyface's stricken moans. "Can we start Baby, as friends? Give you another try/ then tender kisses you'll give to me..." As a whole, *Love, Marriage & Divorce* is competently produced, polished in its execution and has ultimately resulted in rather enjoyable, if not outstanding, R&B. Some songs veer into overly-polite platitudes ("The D Word") or mediocrity ("Take It Back") and others feel tacked on simply to switch the mood up ("Reunited" and the Studio 54-type disco groove, "Heart Attack"), but those infrequent missteps likely won't matter to their die-hard fans, who will likely be too busy singing along, relating and even reminiscing to notice. **Solidly Recommended.**



COLLEGES OF MEDICINE EXAM DATES

FCA (SA) II Oral: 12 -14 May 2014

ADVANCED AIRWAY WORKSHOP

The Advanced Airway workshop is scheduled as follows:

Date: 24 May 2014

Time: 08h30 – 13h00

Venue: SMART Centre & Anaesthetics Seminar Room, IALCH

Enquiry: Dr R Naidoo
rubeshann@yahoo.com

RSVP: Hannah
hannahnai@ialch.co.za

Please note: Registration is free but limited to 40 candidates only. This workshop is CPD accredited.

CROSSWORD

Across: 1 Accumulator; 9 Angelus; 10 Organ; 11 Burro; 12 Offence; 13 Tended; 15 Apache; 18 Uniform; 20 Roots; 22 Crown; 23 Opinion; 24 Held the line.
Down: 2 Cigar; 3 Unloose; 4 Upshot; 5 Aloof; 6 Organic; 7 Rabbit punch; 8 interesting; 14 Noisome; 16 Partial; 17 Smooth; 19 Owned; 21 Orion.

CODEWORD

Fate feat fell fellah felt feta fetal flea flue
flute fuel hale hate hateful heal health
HEALTHFUL heat heath hell late lathe
leaf left lethal lute tale teal tell tulle

CRITICAL CARE CONGRESS – INSPIRING ICU 2014

Date: 27-30 November 2014

Venue: Baxter Theatre Centre, Cape Town, For more information: Critical Care 2014 Congress Office

Tel: +27 (0)21 712 0571

Email: critcare2014@eventsmanagementsolutions.co.za

NEXT SUPER DAMN Fri, 30 MAY 2014

Contributions to:

Ayanda: Mthethwaa@ukzn.ac.za

Natashia: Nzamah@ukzn.ac.za

Nelly: Musirinofa@ukzn.ac.za



7:15 FRIDAY MORNING MEETINGS – L5 LECTURE THEATRE, MEDICAL SCHOOL

DATE	TOPIC	SPEAKER	MODERATOR
25 Apr	Combined Academic Meeting: Clinical Forum/ Research		
02 May	Obstructive Sleep Apnoea	K Naidoo	K Govender
09 May	To be announced	P Reddy	R Samuel
16 May	To be announced	D Munnick	U Singh

MON 28 April	PUBLIC HOLIDAY		
TUE 29 April	11h00	PMMH INTENSIVIST TEACHING WARD ROUNDS	PMMH
	07h15	OBSTETRIC ANAESTHESIA Journal club: Eclampsia <i>K Purchase</i>	IALCH
WED 30 April	07h00	M & M MEETING: KEH	KEH
	07h00	M & M MEETING: IALCH	IALCH
	07h00	M & M MEETING: PMMH FCA PART I TUTORIALS No tutorial	PMMH
THUR 01 May	PUBLIC HOLIDAY		
FRI 02 May	07h15	FRIDAY MORNING MEETING: Obstructive Sleep Apnoea <i>K Naidoo</i>	L5, MS

2014 DIARY

CLINICAL COURSE, DBN:
IALCH 15 – 19 September 2014

DEPT WEBSITE

<http://anaesthetics.ukzn.ac.za/Homepage.aspx>

BIRTHDAYS

Sunday, 27 April 2014
Saaliha Goga

Tuesday, 29 April 2014
Nischal Gokul, Colin Mitchell

Thursday, 01 May 2014
Sibusiso Gama



Thought for the Day!

"Success is never permanent, and failure is never final"

Mike Ditka