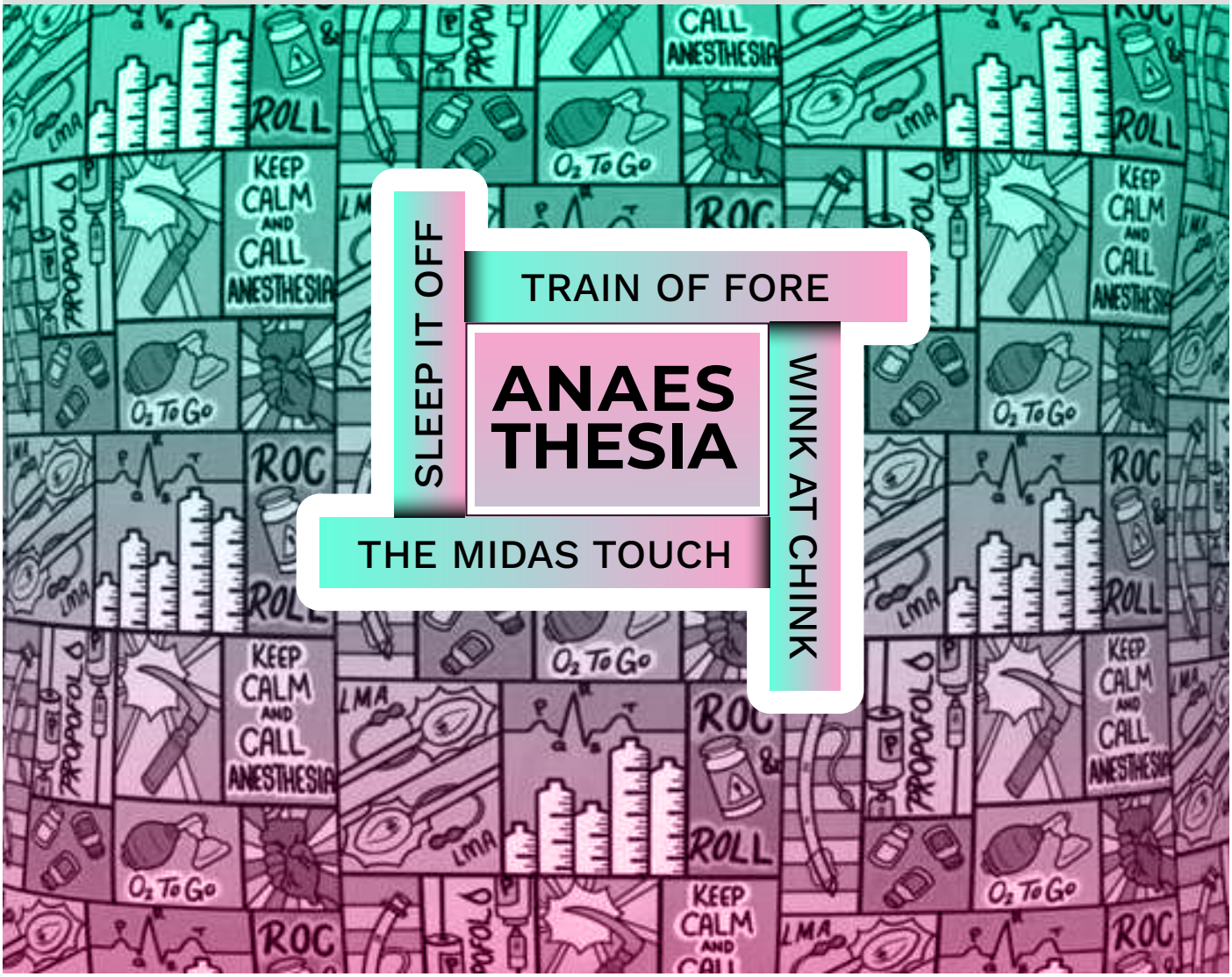
ISA
Indian Society of Anaesthesiologists
Delhi Branch
Eternal Vigilance



ISA DELHI

9th ISSUE, August 2024

Monthly Bulletin of Indian Society of Anaesthesiologists (Delhi Branch)

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(ISA Delhi Branch message)

Dear Friends

Greetings

Now we have to gear up for annual ISA Delhi conference. I request participation from various institutions as your involvement will add to the success of these events. Your support and commitment are key to turning this dream into a reality. Annual delhi ISA Conference will be held for three days (Workshops 27 September & Conference 28 - 29 September 2024 at Hyatt Centric Janakpuri, New Delhi

The nine meetings at Akash Hospital Dwarka, Rajeev Gandhi Super Speciality, Tahirpur, AIIMS, VMMC & SJH, MAMC, ESI Basai Darapur, Sir Ganga Ram Hospital, LHMC & RML, New Delhi were well attended.

Best Wishes to all.

Long live ISA.

Dr. Lokesh Kashyap
President Delhi ISA
Ex Professor and Head
Department of Anesthesiology, Pain Medicine and Critical Care
AIIMS, New Delhi

Vice President

(ISA Delhi Branch message)

Respected Delhi ISAains,

Warm Greetings.

Dear friends. We medical professional and ISA Delhi office bearers strongly condemn brutal rape and murder of one of very promising young budding doctor in R.G. Kar Medical College, Kolkata. Our strong demand of central protection act for safety of working conditions of doctors must be taken by central govt and interference of Hon'ble Supreme Court for justice for young lady doctor and strongly stood with Doctors of R.G. Kar Hospital, Kolkota.

ISA Delhi clinical CME meet of Aug 2024, was organized by Dr. Medha , HOD, UCMS and GTB hospital, which was well attended by senior faculty, resident doctors and anesthesiologists of East Delhi (East Delhi Anesthesia Forum). Clinical meeting was excellent with good discussion followed by high tea.

ISA Delhi clinical CME meet of Sept 2024, was organized by Dr. Neerja, HOD, ABVIMS & Dr. RML Hospital, which was well attended by stalwarts of ISA Delhi, senior faculty, resident doctors. It was great gesture to honor stalwarts of ISA Delhi, Ex HODs, and senior faculty member. ISA Delhi got blessings of them. Clinical meeting was excellent with good discussion followed by high tea.
ISA Delhi has formed Medico legal and ethics cell to discuss and help various medico legal problems of all ISA Delhi members.

Our editorial board under dynamic supervision of Dr. Puneet Khanna has worked hard to put superb monthly news bulletin consisting of good articles. Lot of Kudos to all young editors from different institutes of Delhi. Our annual event, ISACON 2024 is just very near; team is working hard to make it a grand success. I invite all to register and enjoy the mega event.

Best Wishes to all.
Long live ISA.

Dr. Arvind Arya
Vice President Delhi ISA

Honorary Secretary

(ISA Delhi Branch message)

Dear Delhi ISAians,

Greetings from ISA Delhi headquarters!

July in Delhi marks the peak of monsoon season, bringing relief to scrotching summer heat. The rain rejuvenates city's greenary, infuses positive energy but also can lead to challenges like waterlogging . ISA Delhi advices all its members to stay safe feom vector borne diseases such as dengue.

ISA Delhi is pleased to announce that election process for the newly elected governing council for year 2024-2025 was conducted smoothly on the lines of ISA National under the supervision of Dr MD Kaur, election officer. We congratulate newly elected President Dr Munisha Agarwal and Vice President Dr Sonia Wadhawan, they shall be taking oath on 16th October 2024 and join rest of the existing council.

ISA Delhi congratulate Department of Anaesthesiology LHMC under the leadership of Dr Maitree Pandey for successfully organising 8th CME cum Clinical meeting at their newly built plush auditorium on 26 July 2024. It was well attended by many head of departments and budding anaesthesiologists. Versatility of topics and sumptuous high tea was icing on the cake.

Governing council ISA Delhi and organizing committee of 63 annual conference of ISA Delhi ISACON 2024 is all set to welcome you all to the biggest academic extravaganza of the state. There will be eight specialty workshops at different institutions of Delhi on 27th September 2024. Academic fiesta will be on 28th and 29th September 2024 at hotel Hyatt centric. From this year we have started lots of new awards in paper and poster categories so requesting seniors to please encourage residents to submit abstracts.

Long Live ISA Delhi,

Dr Amit Kohli
Honorary Secretary
ISA Delhi

Honorary Treasurer

(ISA Delhi Branch message)

Dear ISA Delhi members,

Greetings from the treasurer's desk.

On behalf of ISA Delhi branch, my heartfelt gratitude goes out to all those who have attended the ISA monthly clinical meets with tremendous enthusiasm.

The stage is set for the annual conclave of ISA Delhi branch, ISACON Delhi 2024. A threeday conference which will commence from 27th September 2024 shall comprise of eight interactive hands-on workshops and an immersive academic design. The complete scientific agenda of ISACON Delhi 2024 has already been released. Please keep the spirits high and participate wholeheartedly in ISACON Delhi 2024 at Hyatt Centric, Janakpuri, New Delhi.

Before I conclude, I would like to remind you that ISA Delhi branch has its own YouTube channel, X and Instagram handle where you can update yourself with the current events and revisit the recorded version of newly launched academic series. You can find the names of social media handles on the cover page of this newsletter. Please subscribe and maximize your engagement there as well.

Thank you all for being valuable members of ISA Delhi.

Long live ISA.
Jai Hind.
With regards,

Abhijit Kumar

Dr. Abhijit Kumar
Honorary treasurer, ISA Delhi.

Editor

(ISA Delhi Branch message)

Dear ISA Delhi Members, Greetings!

It is with immense pleasure that we present to you the 9th issue of our monthly newsletter.

The newsletter contains recent advances, unknown topics, current opinions, relevant but less practiced guidelines, historical aspects with current relevance, sections of long case questions, quiz and crosswords.

We extend an invitation to all hospitals to submit case reports, review articles and studies for potential inclusion in the newsletter. We encourage all members to keep the articles coming, contributing to the richness of our community. Active participation from all members is encouraged to enrich the diversity and depth of our community's content.

In our pursuit for academic excellence, we welcome constructive criticism for improvement.

Long Live ISA! Long Live ISA Delhi!

Dr. Puneet Khanna
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NINTH MONTHLY CLINICAL MEET & TEACHER'S DAY CELEBRATION CONDUCTED ON 5th SEPTEMBER 2024

The physical monthly meet of Delhi ISA was conducted on 5th September 2024 at Atal Bihari Vajpayee Institute of Medical Sciences and Dr. Ram Manohar Lohia Hospital New Delhi. The academic meet was conducted with the celebration of Teacher's Day, we expressed our gratitude & appreciation for our teachers unwavering commitment to shaping our minds. The meet was attended by the members of Delhi ISA office and more than hundred Anaesthesiologists. The meeting was started with Saraswati Vandana followed by lamp lighting. The members of Delhi ISA Office bearers were welcomed and felicitated on the stage.

The Head of the Department of Anaesthesia Dr.Neerja Banerjee delivered welcome address. Dr Amit Kohli presented new changes incorporated in the Delhi ISA programmes planned for the next year.

The scientific program was as follows:

1) Comparison of scalp block and bilateral sphenopalatine ganglion block combined with greater and lesser occipital nerve block for attenuation of hemodynamic stress response following skull pin application in patients undergoing craniotomy under general anaesthesia.

Speaker- Dr. Vikraman, 3rd year PG student
Moderators- Dr (Prof.) Rupesh Yadav & Dr (Prof.) Sandeep Kumar
There was no statistical difference of HR, SBP, DBP and MAP in between the two groups at any of the time points. Percentage change in HR, SBP, DBP and MAP after pin insertion, skin incision and dural incision with respect to their prior time points was also compared between both groups with no statistical difference seen. Study concluded that bilateral sphenopalatine ganglion block along with posterior scalp block can be used as a good alternative for scalp block in hemodynamic response attenuation following skull pin application in patients undergoing craniotomy under general anaesthesia.

2) BRASH syndrome: Expect the unexpected !
Speaker- Dr. Anu Arvind, senior resident & Dr. Pooja Singla, 3rd yr PG
Moderators: Dr (Prof.). Namita Arora & Dr. Meena Kumari
BRASH syndrome is defined as a constellation of symptoms including bradycardia, atrioventricular (AV) nodal blocker, shock and hyperkalemia. The main pathophysiology behind it's is synergistic effects of the AV nodal blockers and renal

dysfunction escalating the effect of the AV nodal blockade.
This case report presents a unique case of BRASH syndrome in a 75 year old female with a history of intake of dual beta blockers and three diuretics for hypertension and portal hypertension posted for total abdominal hysterectomy. Initial presentation was with bradycardia and APC's and sinus pauses in ECG. Laboratory investigations revealed deranged KFT and hyperkalemia. Management involved discontinuation of AV nodal blockers, anti- hyperkalemic measures, IV fluids with soda bicarbonate.

3) Role of pulsed RF Neuromodulation of dorsal root ganglion for the treatment of low back pain with radiculopathy – case series
Speaker- Dr. Sheetal, Assistant Professor Anaesthesia & Dr. Neha Yadav, 3rd year PG
Moderator-Dr(Prof.) Akhilesh Gupta
Chronic lumbar radicular (CLR) pain, linked to conditions like arthritis and herniated discs, significantly impacts health. This case series of six patients demonstrates the effectiveness of fluoroscopy-guided pulsed radiofrequency (PRF) neuromodulation targeting the dorsal root ganglion (DRG). Patients reported an average 77% pain reduction and a 69% improvement in disability scores over three months, showcasing successful treatment outcomes.

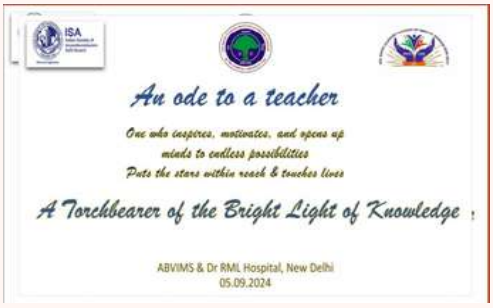
4) CME Topic
Hyperbaric oxygen therapy : An overview and clinical experience
Speaker- Dr (Prof.) Neerja Baneerjee & Dr (Prof.) Neha Gupta

A mode of medical treatment in which the patient is entirely enclosed in a pressure chamber and breathes 100% oxygen at a pressure > 1 atmosphere absolute (ATA).
Hyperbaric Oxygen Therapy is an effective medical treatment that enhances oxygen delivery to tissues, helps in radionecrosis, boosts immune function, neural deafness, decompression sickness and aids in wound healing. It is conducted in specialized monoplace chamber at Dr. RML hospital, It's safe, it requires careful patient selection and monitoring due to potential complications such as barotrauma and oxygen toxicity. Proper preparation and adherence to contraindications are crucial for maximizing the benefits of HBOT. Various studies on HBOT conducted at Dr. RML hospital were also discussed.

WINNERS OF THE QUIZ-

1. Dr. Neha Gupta (ABVIMS & Dr. RML Hospital Delhi)
2. Dr. Pranjal (ABVIMS & Dr. RML Hospital Delhi)

NINTH MONTHLY CLINICAL MEET & TEACHER'S DAY CELEBRATION CONDUCTED ON 5th SEPTEMBER 2024

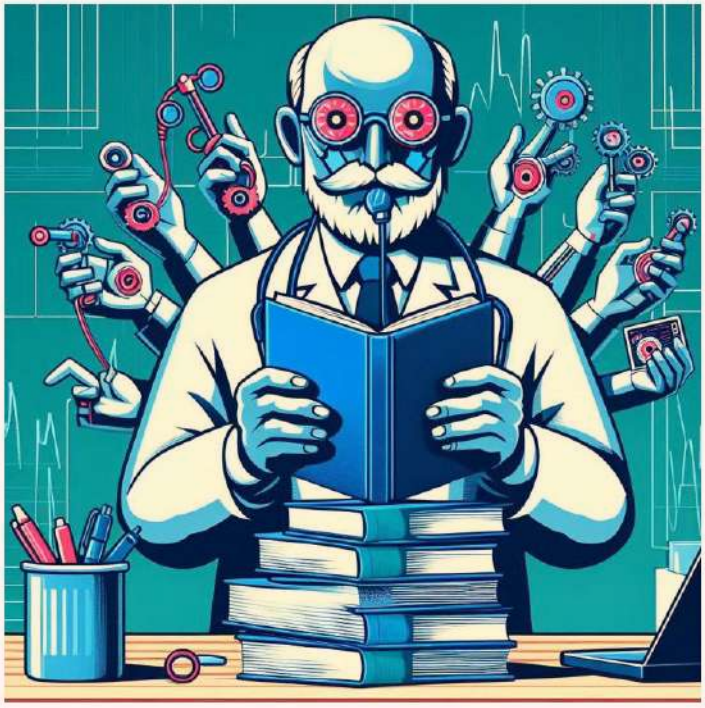


Compiled by

Dr (Prof) Sandeep Kumar

ABVIMS & Dr. RML Hospital Delhi

IMPACT FACTOR AND H-INDEX?
A CHILD'S PLAY FOR DR BHOLARAM: A CAUTIONARY TALE FOR ASPIRING ACADEMICS



Dr. Bholaram was once a rising star at AKA Surpan Institute of Advanced Medical Sciences. Fresh out of Senior Residency, with a heart full of passion and a head full of ideas, he believed he would revolutionize the field of medicine and Anesthesiology. He envisioned himself giving TED Talks on groundbreaking research, accepting prestigious awards, and, most importantly, sipping coffee from his **"World's Best Researcher"** mug.

But fate (and metrics) had other plans.

The First Blow: The Annual Academic Review

The scene was set on a gray Monday morning. Dr. Bholaram, casually confident, strolled into the Annual Academic Review meeting. He'd even brought Chai-Samosa's for the administration, because, well, who doesn't love Chai-Samosa? But the enthusiasm quickly faded when the dean, Dr. Lankesh D, began the meeting with a polite but ominous phrase: "Bholaram, let's talk about your publication record."

Turns out, those two case reports and a book chapter from residency days weren't exactly cutting it. In fact, Dr. Bholaram's h-index was lower than his shoe size, and his citation count? Well, that was still comfortably lounging in the single digits, mostly thanks to his own self-citations.

Dr. Lankesh leaned forward, fingers steepled. "Bholaram, your metrics are... concerning. Without significant improvement, we may need to reconsider your rank as Associate Professor. You're at risk of demotion."

Demotion. The word echoed in his mind like a bad soundtrack. His dreams of strolling the halls with a Nobel Prize were suddenly replaced with visions of him fetching coffee for the department First semester JR.

The Great Humbling

It got worse. The departmental committee chimed in, each with their own brand of academic shade.

"Your impact factor contributions are… negligible."

IMPACT FACTOR AND H-INDEX? A CHILD'S PLAY FOR DR BHOLARAM: A CAUTIONARY TALE FOR ASPIRING ACADEMICS

"The number of *real* journals you've published in is… well, almost zero."

And finally, the head of the promotion committee, Professor Karan Kumbh, delivered the crushing blow: "Your h-index is so low, even undergrad interns laugh at it."

Dr. Bholaram left the meeting with his Samosas untouched and a bruised ego the size of a predatory journal's submission fee.

The (Shady) Rise of Dr. Bholaram

But Dr. Bholaram wasn't one to back down. No, he wasn't going to be demoted. He was going to rise. Rise like the phoenix. Or at least, like a mediocre paper that somehow manages to get a lot of citations.

That evening, he embarked on a journey deep into the underbelly of academic publishing. He discovered the **dark arts of author metrics manipulation**. Forget research integrity! He had found a better way.

Step 1: The Birth of "JAA- The Journal of Absolutely Anything" Dr. Bholaram realized that one way to boost his reputation was to control the very thing that was controlling him: the journals. So, he launched his own. Enter *The Journal of Absolutely Anything*. The submission process was simple: send Rupees20000 and your paper—no peer review needed! Within weeks, he was editor-in-chief of a thriving (okay, highly questionable) predatory journal. Who needed impact when you had *impacts*? After all, citation counts don't ask for quality.

Step 2: Citation Cartel Connoisseur Next, he joined forces with some equally desperate colleagues. Together, they formed a **citation cartel**. It was an ingenious system: everyone in the cartel cited each other in every paper they wrote, from case reports on ingrown toenails to the occasional "groundbreaking" review on coffee's impact on resident morale. His citation count began to rise faster than his coffee consumption, and soon his h-index climbed from the pit of despair to numbers he could boast about.

Step 3: The Self-Citation Spectacle Feeling invincible, Dr. Bholaram indulged in the art of **self-citation**. His papers became intricately linked in an endless loop of circular referencing. It was a beautiful, self-sustaining cycle. If anyone complained about his metrics, he'd simply reply, "Well, clearly you haven't read my *previous work*," which, of course, was cited in his current work.

The Comeback

By the time the next Annual Academic Review came around, Dr. Bholaram was a changed man. He waltzed into the office of Dr. Lankesh D, not with Chai Samosa, but with a portfolio filled with *metrics*.

His h-index? Skyrocketed.

His citation count? Impressive, if you didn't look too closely at who was doing the citing (spoiler: it was mostly him and his cartel buddies Dr D Lakhan and Dr J Sia).

His journal? Flourishing—well, if by flourishing you meant it accepted everything that came with a check.

Dr. Lankesh flipped through the pages. "Well, Dr. Bholaram, I must say, I'm... surprised. Your metrics have improved dramatically. We're looking at promotion rather than demotion this year."

Bholaram nodded sagely, resisting the urge to cackle. "Thank you. It's been a lot of hard work."

And thus, the academic system had rewarded Dr. Bholaram.

The (Inevitable) Downfall

But as with all tales of meteoric rises based on dubious methods, the fall was inevitable. It started with whispers in the hallways. "Have you noticed how many papers Dr. Bhola publishes in that sketchy journal?" "Isn't it weird how often his name shows up on unrelated research?"

One day, the university received a formal complaint from the **Committee of Ethics in Research**, and Dr. Bholaram's castle of self-citations began to crumble. His predatory journal was exposed. His citation cartel was dismantled, and worst of all, his self-citation spree was officially banned.

The following review meeting was swift. There were no donuts, no empty gestures of camaraderie. Dr. Lankesh didn't even bother with small talk. "Bhola," she said, eyes heavy with disappointment, "it seems you've been... creative with your metrics."

The demotion was swift. He left the office that day, his head hung low, knowing that he would forever be remembered not as Dr. Bholaram the medical genius, but as Dr. Bholaram the manipulator of the academic system.

Moral of the Story

The story of Dr. Bholaram serves as a cautionary tale for every academic out there. In the quest for numbers, one may be tempted to bend the rules, but the metrics system, though flawed, eventually catches up. True academic success is about integrity, not numbers. And remember: no amount of self-citations can save you from the truth.

Unless, of course, you really need a promotion—then maybe just a *few* self-citations wouldn't hurt...

Table: Key Learning Points.

Topic	Key Points
Journal & Author Metrics	- Metrics like Impact Factor (IF), h-index, and altmetrics are widely used to gauge academic influence.
Authorship Manipulation	- Gift, ghost, and honorary authorship distort real contributions. - COVID-19 boosted citations artificially.
Overemphasis on Impact Factor	- Impact Factor (IF) overused as a measure of journal quality. - Originally designed for library use, not quality.

IMPACT FACTOR AND H-INDEX?
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Strategic Citation Practices	- Journals inflate IF by encouraging self-citations. - Early access publications count citations before formal publishing.
Citation Cartels	- Journals/authors mutually agree to cite each other excessively. - This artificially boosts IF and misrepresents quality.
H-Index Manipulation	- Does not distinguish between lead and minor roles in collaborations. - Self-citation inflates h-index.
Predatory Journals	- Charge fees, lack peer review, manipulate metrics for profit. - Risk damaging researchers' reputation.
Altmetrics Manipulation	- Altmetrics track online engagement but can be gamed via social media campaigns. - Popularity ≠ scientific quality.
Pressure to Publish	- "Publish or perish" mentality leads to quantity over quality. - Researchers rush to publish for short-term gains.
Bottom line	- Misuse of metrics undermines scientific integrity. - Focus should shift to quality, relevance, and long-term significance.

Further reading:

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- **Roldan-Valadez E**, Current concepts on bibliometrics: a brief review about impact factor, Eigenfactor score, CiteScore, SCImago Journal Rank, Source-Normalised Impact per Paper, H-index, and alternative metricsIrish Journal of Medical Sciences. 2019.
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- **D Fanelli.** Do pressures to publish increase scientists' bias? An empirical support from US States Data. *PLoS One*, 2010; 5(4): e10271.

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ANAESTHESIA BOARD CERTIFICATION IN INDIA: TIME TO PULL THE TRIGGER?

India is a large and diverse country, and anaesthesia training standards are as diverse as our country. Anyone who has been an examiner will attest to this fact. An increase in the number of specialty training positions to cater to the increasing healthcare needs of the country was a long standing demand. This demand has been met with more than a doubling of anaesthesia residency spots across the country. What is less than ideal is a commensurate increase in the standards of training or standardization. There are several reasons why licensure or common exit examinations are justified and should be implemented post haste.

1. By requiring candidates to pass a standardized test, the healthcare system can ensure that only those who meet specific knowledge and skill thresholds are allowed to practice anaesthesia. This could lead to improved patient safety and care quality, as licensed professionals would be better equipped to handle complex medical situations.

2. A licensure examination would mitigate concerns about bias and discrimination associated with the present system. A system practised by the National Board of Examinations where candidates appear at a test centre different from their place of residency training and are examined by faculty who were not involved in their training would be ideal and should be adopted widely.

3. Licensure examinations can help standardize the qualifications of anaesthesiologists across different states in India. Currently, there is variability in training programs and assessment methods, which can lead to disparities in practice standards. A licensure exam would ensure that practice standards trend towards uniformity nationwide.

4. Successfully passing a licensure examination can elevate the professional standing of anaesthesiologists. It formally acknowledges their expertise and commitment to upholding high standards in the field.

5. Preparing for a licensure examination motivates anaesthesiology residents to engage in continuous learning. It requires them to stay informed about the latest developments in anaesthesia practices and technologies, fostering lifelong learning habits essential in the ever-changing field of medicine.

While there may be legitimate concerns about increased mental stress being placed on residents with the implementation of a new system, these concerns should be toned down by a fairer system. Like with anything new, there will be teething troubles. But that should not stop our fraternity for a change which is much needed.

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ETHICAL, LEGAL ISSUES AND LEGAL FRAMEWORK RELATED TO PRACTICE OF ANAESTHESIOLOGY & CRITICAL CARE IN INDIA

Introduction

The legislation, laws, rules, professional and societal ethics provide fundamental guidance to professionals in practising their profession. Legal rules are enforced by courts of law (Criminal, civil courts and consumer forums) whereas rules of ethics are enforced by professional bodies like the Medical Council of India (now National Medical Commission). This present article is written to focus both ethical and legal frameworks pertain to practice of anaesthesiology and critical care.

The present article is structured into five parts:

- Ethical practices in anaesthesiology and critical care
- Role of consent in anaesthesiology and critical care
- Importance of maintaining records in anaesthesiology and critical care
- Consumer Protection Act (CPA), 2019 which repealed the former Act of 1986
- Learnings from important case laws and judgements of hon'ble supreme court of India.

The conduct of a registered Medical Graduate is governed by the Ethics and the regulations pronounced by Indian Medical Council Act 1956. Qualified physicians must therefore abide by regulations under Indian Medical Council act, especially Professional, Etiquette & Ethics Regulations 2002 and its subsequent amendments. The American Society of Anaesthesiologists (ASA) has published a set of guidelines for the ethical practice of anaesthesiology amended in 2018.

The Indian Society of Anesthesiologists (ISA) has also recommended similar guidelines for ethical practice.

A. Basic Principles of Medical Ethics

- Beneficence: While the principle of nonmaleficence is based on 'do no harm,' beneficence requires physicians to 'do good' for the patient in every situation
- Nonmaleficence: Anaesthesiologists abide by the doctrine of 'do no harm' to their patients.
- Autonomy: The patient is an independent being who can make fully informed decisions regarding his/her own health care and coercion is unethical.
- Justice: Anaesthesiologists should be fair when providing their services to surgical patients.

B. Common Ethical dilemmas in anaesthesia practice

Anaesthesia is a unique different specialty in medicine where a patient is mostly unaware of the anaesthesiologist's presence or 'behind the screen' work. Anaesthesia invariably involves using machines and gadgets in patient care. These factors may potentially result in dehumanization of patient care and result in an ethical dilemma. Preoperative issues

The anaesthetist and patient are usually less familiar with each other and effective communication is necessary to establish a good rapport and comfort level.

Anaesthesiologists must explain about procedure, type of anaesthesia, effects and complications to get 'Informed Consent' from the patient. Examination and documentation during preoperative evaluation (Preanesthetic Checkup) is very important as PAC record is most important medicolegal document. Many a times 'fitness' for surgery is given by the general physician whose opinion may be in conflict with that of the anaesthesiologist. These ethical dilemmas can be solved by skillful interaction with patients, surgeons and other colleagues without having a direct conflict.

Intraoperative issues

Anaesthesiologists should guard the patients' modesty and be compassionate to their feelings when they are in the operating room. The 'captain of the ship' tendency of surgeons is a major concern that can create conflict. Anaesthesiologists should be very diplomatic in their approach to avoid conflicts during this period. it is essential to remain assertive and avoid domination by other professionals during patient care.

Postoperative period

The anaesthesiologist as a perioperative physician has greater responsibilities in the postoperative period until the patient is discharged. A anaesthesiologist should not rely on the surgeon for postoperative pain relief which may result in ethical implications as inadequate pain relief is a common shortcoming. Adequate oxygenation, airway management and ventilatory management are principal goal of anesthesiologist.

Ethics in Anaesthesia teaching

ETHICAL, LEGAL ISSUES AND LEGAL FRAMEWORK RELATED TO PRACTICE OF ANAESTHESIOLOGY & CRITICAL CARE IN INDIA

Traditional approach of learning ethical principles is through the examples set by the senior colleagues or teachers is not enough. Problem-based learning (PBL) is an effective tool in teaching ethical value education to students. Topics like interprofessional relationships, consent signing, informing critical conditions to relatives etc., is best taught using case scenarios and communication skill modules.

ROLE OF CONSENT IN ANAESTHESIOLOGY

Informed written consent

Informed written consent is a legal term that implies an autonomous, informed authorization by a patient to undergo a medical or surgical treatment. Informed consent includes a proper discussion between physician and a patient about all relevant aspects of a proposed treatment and its alternative procedure, if available.

Components of Informed Consent

Essential components of an informed consent are:

1. Disclosure - Transmission of proper information that is relevant and material in decision making. The patient must be informed about the following components:
   a. nature of the disease
   b. options available for treatment and management including risks and benefits
   c. success and failure rate, after effects and prognosis of disease
   d. cost of treatment

For example, in the case of A.K. Mittal (DR) V. Raj Kumar 2009 CTj 606 (CD): 2009(2) CPR 43: 2009 (20 CPj 160 (NCDRC), a minor patient was operated for modified radical mastoidectomy (MRM) and the consent for the same was taken from his father. However, it did not mention the name of surgery and risk of facial palsy was also not explained to patient and relatives. After the surgery, the patient suffered from facial paralysis that cannot be corrected by any means. The court found the doctor negligent for not taking proper informed consent and awarded a compensation of RS 1.5 lakh.

2. Comprehension -The informed consent must be comprehensive to the patient. It should be explained in the patient's own language and if needed an interpreter may also be used. If the patient has any communication problem (deaf, dumb or blind)

special attention must be taken to make sure that he has understood everything properly.

3. Absence of any outside control - The informed consent for treatment should be given by patient's free will, without any undue pressure or influence from doctor, nurse or any relatives.

4. Competence - Consent for purpose of clinical examination, diagnosis and treatment can be given by any person who is conscious, mentally sound and above 18 years of age. Patient should not be under influence of any drug, alcohol or anaesthesia. For general physical examination, patients above 12 years of age can give consent.

5. Actual Consent - To make it actual and legally acceptable consent
(a)- everything must be in writing
(b) signature of patient must be obtained in the presence of two independent witnesses to avoid disputes over legal admissibility of consent. Patient and witness should write their names below their signatures and relationship between them should be specified. In case of illiterate patient, thumb impression can be used, and name should be mentioned below the impression.
(c) Consent should be for a specific procedure and if any other procedure is required, one should take fresh consent unless it is lifesaving.

Important legal cases are as follows related to Consent

I. Arjun Bala Krishnan Iyer v. Soni Hospital and others, AIR 2003 Madras-HC 389. In this case, the patient was operated for ovarian cyst and informed written consent was taken for the same. During surgery, due to profuse uterine bleeding, a hysterectomy was done with written consent from the patient's husband. Later on, this patient sued the doctors and hospital for some complication. The patient pleaded that the consent for hysterectomy was not taken from the patient. However, this plea was denied by the court, as the procedure was lifesaving and taking consent from the patient was not possible as she was anaesthetized.

II. Shailesh A. Shah (Dr.) v. Aphraim Jayanand Rathod, first appeal no. 597/95, decided on 8/5/2003 reported in 2003 LJCP p. 384 (NCDRC). In this case, patient was operated for appendicectomy for which proper informed consent was taken from the patient and relatives. Later, the patient required re-exploration because of intra-abdominal sepsis and perforation but no separate consent was taken for second surgery. For this, the court found negligence on the part of the doctor for not taking consent and a compensation of Rs 1 lakh was awarded

III. Important landmark judgment of hon'ble Supreme court of India for consent is Samira Kohli vs Dr. Prabha Manchanda & Anr (16 January, 2008) which explain each component of Consent in depth.

5. Substitute consent (Proxy consent)

Substitute consent means when consent is taken or obtained on behalf of a patient who is not competent to give consent for medical treatment or refusal for the same. This type of consent is acceptable in the case of a minor, unconscious patient, patient under anaesthesia or sedation, mentally unsound (or intoxicated) patient or in any emergency or accidental case where near relatives are not available

6.Blanket consent

It is a common practice that at the time of admission, a patient is asked to sign a printed format in which consent is taken for any type of procedure or surgery without specifying any treatment. This type of blanket consent is legally invalid, hence should be avoided.

7. Withdrawal of consent

Consent is a willful act, and the patient can withdraw her consent at any time. Once a patient withdraws his/ her consent, it is unlawful to continue treatment by a medical professional.

IMPORTANCE OF DOCUMENTATION (RECORDS)

'Verba volant, scripta manent' (meaning, spoken words fly away, written words remain) is a quote by emperor Titus addressing the Roman senate around 80 AD.

Medical records are those documents that explain all details about the patient's

history, clinical findings, diagnostic test results, pre and postoperative care, patient's progress and medication. The ISA guidelines for practicing anaesthesiologists in India, provide a guide on how to maintain good anaesthesia records.
The demographic details of patients with a unique hospital identification number, contact numbers for the patient, the anaesthesia checklist (marked and signed) is necessary in documentation. Others are as follows:

Anaesthesia:

1. Regional/Block: name of block, concentration and volume of local anaesthetic agents, with any adjuvant used.
2. General Anaesthesia: Pemedicants, induction agent, muscle relaxants: name, dose and route of all drugs at appropriate times.

- Airway management device: Name of device, size, and if endotracheal tube is used, oral/nasal and fixation mark to be recorded.
- Maintenance of anaesthesia: Names and concentration of inhalational agents.
- Ventilation: Mode of ventilation used, with tidal volume and respiratory rate if applicable.
- Symbols for hemodynamic parameters e.g., SBP, MAP and respiratory parameters (SpO2, Respiratory Rate), must be entered on a chart at appropriate places along with the timelines at regular intervals.

Intravenous fluids and drugs must also be entered with the timeline. Documentation of the postoperative condition of patients is very important. All orders should be clear, legible and self-explanatory. Routine and special monitoring requirements and area of transfer to ward/recovery room/ICU must be mentioned.

The Indian Medical Council (Professional Conduct, Etiquette and Ethics 2002) Regulations, outlines certain duties and responsibilities of the physicians regarding record keeping as follows:

1. Every physician or hospital should maintain the medical records pertaining to the indoor patients for a period of three years from the date of commencement of the treatment.
2. If any request is made for medical records either by the patients/ authorized attendant or legal authorities involved, the same must be duly acknowledged and

documents should be issued within a period of 72 hours.

3. When issuing a medical certificate, all registered medical practitioners (RMPs) must maintain a register to note details of all medical certificates issued, keeping in mind:

i. Signature and/or thumb mark of patient along with address
ii. At least one identification mark of the patient must be present on the certificate.
iii. Practitioners must keep a copy of the issued certificate.

In March 2020, the Government of India released the 'Telemedicine Practice guidelines' wherein it is incumbent on RMPs to maintain the following records/documents too.

1. Log or record of Telemedicine interaction (e.g., phone logs, email records, chat/text record, video interaction logs etc.)
2. Patient records, reports, documents, images, diagnostics, data, etc., (digital or non-digital) utilized in the telemedicine consultation.
3. Specifically, in case a prescription is shared with the patient, the RMP is required to maintain the prescription records as required for in-person consultations.

CONSUMER PROTECTION ACT (CPA)

An anaesthesiologist can be taken to court either in a criminal case or in a civil case. In criminal cases anaesthesiologist faces prosecution and punishment, whereas civil courts award compensation for the complainant. After the introduction of CPA, most cases of medical negligence go to consumer courts for simple procedures and speedy disposal.

Consumer has been defined in the CPA as any person who buys something or avails any service for a consideration. After landmark case judgment by supreme court in Indian Medical Association vs V.P. Shantha & Ors on 13 November, 1995, Medical profession is in ambit of CPA. Any health-related service provided by Government hospital or private hospital, where a patient has been charged a fee, full or concessional, can be challenged in consumer court.

Far higher pecuniary limits have been fixed for commissions at various levels. District Commission (as it is called in the new act, the previous act referred to it as District Forum) has been empowered to entertain consumer complaints not exceeding

rupees one crore in value. This limit was Rupees 20 lakhs under CPA 1986. Similarly, state commissions can entertain complaints up to 10 crores and National commission can entertain claims above 10 crores.

Few Relevant Questions:
Question: Is doctor working in govt. sector can be sued in CPA or can be dragged to the courts??
Answer: Yes, doctor working in govt. sector can be sued in medical council (Quasi-judicial body), Consumer courts, Civil suits {Tort) and also in criminal negligence under IPC section 304A.
Question: Is doctor working in govt. sector should take professional indemnity? What is right amount of insured value for anaesthesiologists?

Answer: doctor working in govt. sector are not immune to law and legal provision. In recent past, consumer forums and courts has awarded huge compensations against govt. doctors therefore each doctor either in private or in govt. sector should take sufficient insurance cover under professional indemnity. The optimum amount for anaesthesiologists is around one core in rupees as professional insurance cover. ISA national is providing professional indemnity at very reasonable cost.

Among other situations, anaesthesiologists have been or can be dragged to the courts in following instances:

- Hypoxic brain damage leading to death during general anaesthesia.
- For missing pre-anesthetic evaluation and ensuring availability of proper equipment.
- Neurological deficit after neuraxial or regional anaesthesia.
- Lack of disclosure of information/inadequate consent.
- Inadequate monitoring during the procedure.
- Awareness during anaesthesia

LEARNINGS FROM IMPORTANT CASE LAWS AND JUDGEMENTS OF HON'BLE SUPREME COURT OF INDIA RELATED TO PRACTICE OF ANAESTHESIOLOGY AND CRITICAL CARE

Anaesthesia is the second most vulnerable branch for medicolegal complications and litigations against anaesthesiologists after Obstetrics and Gynaecology branch of

modern medicine.

Following is discussion with example of medicolegal cases.

1. Mumbai Grahak Panchayat vs Dr (Mrs) Rashmi B. Fadnavis and others [1996(1),CRP,137:1998(1)CPJ,49(NCDRC)]

Anaesthesiologist also owes a duty of care towards patient

Anaesthesiologist also owes a duty of care towards patient, even if there is no direct contract between him and patient It should be known that anaesthesiologists, who participate in the process of delivery of medical services is as much liable as the main surgeon if the negligence is established against him even if his services have not been hired directly by the patient.

2. Aruna Ben D Kothari and Others vs Navdeep Clinic and Others. [1996(3) CPJ605 (Gujarat SCDRC)]

Details of case:. Patient died during the operation in OT. The complainants alleged that amounts of drugs used for anaesthesia were more than maximum and death was direct result of such use of drugs, and gave reference of book- Lee's synopsis of anaesthesia.

The State Commission noted that complications and death occurred in operation theatre where patient's attendants have no access whatsoever and onus, therefore, lies on doctors to explain the events that happened there..

The State Commission held Dr. Shailesh Desai, physician and cardiologist negligent both for acts of omission and commission. Dr Desai, in his preoperative assessment, noted BP of 150/100 mmHg and associated ECG changes. As this was not a life-saving surgery he should have advised proper investigation and treatment prior to declaring patient fit for surgery. The surgeon Dr Rashmi Vora was the master of the OT and availability of defibrillator was her look-out. The appointment of liability was held as follows Dr Rashmi Vora(surgeon) 30 percent; Dr Minaxiben (Anaesthesiologist) 60 percent; and Dr. Sailesh Desai (Physician-Cardiologist) 10 percent.

Important lessons learnt from above cited case.

- If death occur in OT than onus to prove non guilty lies on doctor not the

attendant.

- Always inform Police and insist on Post mortem in case of death on table, there is no need of attendants of the patients for consent for post mortem of the decreased patient.
- Always do detailed Pre-Anesthetic checkup (PAC). Do not ignore the findings both negative and positive. PAC is one of the most important legal documents.
- In non-emergency cases do not rush for surgery unless patient is properly optimized and declared fit for surgery and anaesthesia.
- Do not operate if hospital or medical centre do not have standard facilities adequate to handle complications. Following ISA guidelines for minimum standard monitoring is essential.
- Do not certify and document the cause of death if anaesthesiologist is not certain about possible cause.

Death on the Table

Anaesthetists are more likely to experience a patient's death on the table as compared to surgeons, which can be very stressful. It is important to understand that if a death occurs on the table, it does not always imply rashness or negligence. The cause of death can be finalized through post mortem and histopathology investigations.

- A doctor can give the Death Certificate (DC) only if he is sure of the cause of death.
- In cases of anticipated death, it is important to keep the relatives informed.
- Complete all the relevant documentation and tally the notes among the consultants.
- Do not clean the OT; preserve all ampules used during the procedure.
- The OT setup should never be found with expired drugs
- The death of the patient should be communicated to the relatives in a sympathetic and sensitive manner.
- Always inform the police and insist on the execution of a post-mortem

3. Ascher vs Gutirrea,553F 2d,1235, DC CA 1976

Details of the case: The patient went into laryngospasm during surgery. While patient's condition was still critical, the anaesthesiologist left to attend to another operation. Although he claimed that another qualified anaesthesiologist was in the

operating room and treating the patient at the time when he left, the surgical log book indicated and gap of several minutes and no anaesthesiologist was present during that time. The patient later developed cardiac arrest. The court found the first anaesthesiologist negligent in treatment and guilty of abandonment for failing to remain with a patient who was in such obvious difficulties.

learning:

- Do not leave your patient till surgery is over and patient has recovered to your satisfaction and has been shifted to post recovery unit.
- Documents, notes on anaesthesia chart and case sheet during and after surgery should be meticulous.
- Handover the patient to qualified competent doctor and staff only in recovery units.

4. Dr Lakshmanan Prakash vs State, 2001ACJ 1204 (Mad.-HC).

Details of case: Doctors were prosecuted for offence under 304-A, IPC in criminal law and also for civil liability. It was alleged that “patient died for acute respiratory failure, a sequela to spinal anaesthesia. Anaesthetist failed to assess during preoperative anaesthesia as to whether patient would withstand 3 ml heavy bupivacaine given through spinal route to patient, an accident victim, suffering from multiple road traffic injuries, including head injury.” Court held only the anaesthetist may be held criminally liable, not the doctors who performed operation as there was no proximate nexus between death and negligent act of the surgeons. “However, all of them may be proceeded against for damages by invoking civil law on the basis of negligence attributed to them in handling the patient who died on the operation theatre.

The anesthetist and the operating doctors were also held liable for damages under civil law for their negligence, which lead to death of the patient.

Learning: It's the anaesthetist's responsibility to decide which anesthesia is to used and to see that the patient was safeguarded until he/she returned to consciousness.

5. Dr MK Gouri Kutty and, etc. vs MK Madhavan and Ors. [AIR2001 (Ker. -HC) (DH)398].

Details of the case: In a case of tubectomy, it was alleged that anesthetist and other

Hospital staff were negligent and also government hospital was vicariously liable. In this case, plaintiff (patient) lost her consciousness after the operation. The defendants could have produced records to show the condition of the patient before operation, whether the patient was medically fit to undergo operation. Court alleged that “if some records had been produced regarding this aspect, probably, there would have been some justification in the case of the defendants (doctor, staff and Hospital).” The court below adopted the principle of res Ipsa loquitur. The Government constituted a medical board. The board examined the case and found that Smt. Rohani had a cardiac arrest following the operation. It was also pointed out that this was an unforeseen accident which unfortunately happened on the table by which she sustained on irreparable brain damage as a result of brain anoxia. Thus, it was admitted that the brain anoxia occurred during the time of operation. Compensation of Rs 3.8 Lacs under different heads awarded against the government hospital, anesthesiologist other staff.

Learning: Documentation can be your best friend as well as worst enemy. Document everything. Anaesthetists spend hours in process of surgery and fail to spend even few minutes in putting proper notes.

6. Charan Singh vs Healing Touch Hospital and others. [2003 (2) CRP 95:2003 (3) CPJ 62:2003 (6) CLD 46 (NCDRC)].

Details of the case: In an operation for removal of stone from urethra under spinal anesthesia postoperatively patient had paralysis of left-side of body and radiculitis. It was held that radiculitis is an infrequent complication arising in one percent cases of spinal anesthesia which does not amount to negligence. Court held that " what was done by the anesthetist was as per accepted medical procedure and settled position on the subject. In such circumstance, he cannot be held guilty of any negligence especially when all over the world it is an accepted procedure having less than one percent of spinal anesthesia and suffered radiculitis a known but infrequent complication.

Learning: Do not be scared of known complications. Only thing is you should be well prepared to handle them.

7. Dr G Vivekananda vs Chintha Bharamaramba and others [NCDRC) CTJ 2007 p.4O7]. Details of the case: Petitioner doctor performed tonsillectomy operation on a thirty year-old patient at his nursing home after administering him local anesthesia himself and did not call an anesthetist. Patient then developed laryngospasm or bronchospasm and oxygen was not arranged within time. Patient dies during transportation. State Commission dismissed the petitioner's appeal against the order passed by the district forum applying the principle of res ipsa loquitor and held doctor negligent. The doctor made a revision petition to national commission which was also dismissed.

Learning: As a surgeon should not cross limit of his expertise. Anesthetist must be available and operation room should have all facilities ready to manage anesthesia complications.

- Proper preanesthesia check and informed consent should be taken in each case.
- American Sociery of Anesthesiologists (ASA) risk stratification should be done and emergency cases must be marked accordingly.
- Anesthetic technique chosen for the case, must be in accordance with the standard anesthesia practice worldwide. While administering other techniques, the reasons for it must be clearly stated in the notes.
- The statistical risk of anesthetic procedure, drugs, blood, blood product transfusion, postoperative ventilatory support and recovery must be clearly explained to patient and relatives.

In summary, every anaesthesiologist must have some knowledge of law and ethics in order to protect himself / herself from avoidable litigation or disciplinary action. All anaesthesiologists must adhere to guidelines of Indian Society of Anaesthesiologists (ISA). Proper communication, informed consent and documentation is necessary to protect from litigations.

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REPURPOSING ANAESTHESIA AS A STRESS TEST FOR RECOVERY OF CONSCIOUSNESS

Introduction

The recovery of consciousness after anaesthesia is a critical area of study in the fields of anaesthesiology, neurology, and critical care medicine. While anaesthesia is traditionally viewed as a tool for inducing a temporary state of unconsciousness to facilitate surgical procedures, recent research has begun to explore its potential repurposing as a means to assess and understand the mechanisms of consciousness recovery. This essay examines the rationale, methods, and implications of using anaesthesia as a stress test for evaluating recovery of consciousness, focusing on its clinical relevance and future directions.

The Nature of Consciousness

Consciousness is a complex and multifaceted phenomenon that has long intrigued scientists and philosophers alike. It encompasses awareness of self and environment, responsiveness to stimuli, and the ability to process information. Understanding how consciousness can be disrupted and subsequently recovered is crucial, especially in contexts such as surgery, critical illness, and neurological disorders.

The mechanisms underlying consciousness remain partially understood, but advances in neuroimaging and neurophysiology have provided insights into the brain regions and networks involved. By leveraging anaesthesia, researchers can gain unique insights into these mechanisms, as the state induced by anaesthetic agents temporarily alters brain activity and connectivity.

Anaesthesia as a Tool for Studying Consciousness

1. Mechanisms of Action

Anaesthetic agents primarily exert their effects by modulating neurotransmitter systems and altering neural connectivity. For example, agents like propofol and sevoflurane enhance inhibitory neurotransmission (primarily GABAergic), leading to a decrease in neural activity in certain brain regions. By studying the effects of these agents on brain function, researchers can better understand the neural correlates of consciousness.

2. Assessing Recovery

Recovery from anaesthesia typically involves a sequence of stages, beginning with the return of basic reflexes and progressing to full consciousness. The time it takes for a patient to regain consciousness can be influenced by various factors, including

the type of anaesthetic used, duration of surgery, and individual patient characteristics. By observing the recovery process, clinicians can identify patterns and biomarkers that indicate the return of consciousness.

Proposed Methodology

Using anaesthesia as a stress test for recovery of consciousness involves several key steps:

1. Controlled Administration of Anaesthetic Agents

Administering a controlled dose of anaesthetic allows for a standardized approach to study consciousness recovery. This involves selecting appropriate anaesthetic agents that induce a reliable state of unconsciousness while also permitting observation of recovery. Propofol and dexmedetomidine are commonly used due to their rapid onset and offset of action, providing a clearer window for study.

2. Monitoring Neurological Function

Continuous monitoring of neurological function during and after anaesthesia is critical. This can be achieved through various modalities, including:

- Electroencephalography (EEG): EEG can provide real-time data on brain electrical activity, helping to identify changes associated with the transition from unconsciousness to consciousness.
- Functional Magnetic Resonance Imaging (fMRI): fMRI can elucidate brain network dynamics during recovery, highlighting areas of reactivation.
- Neurological Scales: Utilizing standardized scales, such as the Glasgow Coma Scale or the Modified Aldrete Score, can help quantify recovery levels and responsiveness.

3. Assessing Cognitive and Motor Function

Following the return of consciousness, cognitive and motor functions should be assessed. This can include simple tasks to evaluate orientation and memory or more complex cognitive assessments. The goal is to create a comprehensive profile of recovery that encompasses both subjective and objective measures.

Clinical Implications

The repurposing of anaesthesia as a stress test for recovery of consciousness carries significant clinical implications:

1. Understanding Consciousness Recovery

By systematically studying recovery from anaesthesia, clinicians can gain valuable insights into the mechanisms of consciousness. This knowledge could inform better practices in anaesthesia management, particularly for vulnerable populations such as the elderly or those with pre-existing neurological conditions.

2. Improving Patient Outcomes

Identifying biomarkers and predictive factors for recovery of consciousness may enable anaesthesiologists to tailor anaesthetic strategies for individual patients. For instance, understanding how specific agents affect consciousness could lead to optimized anaesthetic plans that minimize the risk of postoperative cognitive dysfunction.

3. Addressing Postoperative Delirium

Postoperative delirium is a common complication in surgical patients, particularly in older adults. By using anaesthesia as a model for studying consciousness recovery, researchers can develop interventions aimed at preventing or mitigating delirium. Identifying patients at risk for cognitive decline could also allow for targeted postoperative care strategies.

Future Directions

The future of using anaesthesia as a stress test for recovery of consciousness holds great promise. Areas for further exploration include:

1. Longitudinal Studies

Conducting longitudinal studies that track patients over time can provide insights into the long-term effects of anaesthesia on cognitive function and consciousness recovery. Such studies could help identify any enduring impacts of anaesthetic agents and inform clinical practices.

2. Exploring Alternative Anaesthetic Agents

Investigating the effects of different anaesthetic agents on recovery of consciousness can help identify those that may be less likely to impair cognitive function. Novel agents with different mechanisms of action may provide new insights into consciousness and recovery.

3. Interdisciplinary Collaboration

Collaboration between anaesthesiologists, neurologists, psychiatrists, and neuroscientists will be crucial in advancing this research area. Interdisciplinary

approaches can facilitate a more comprehensive understanding of consciousness and its recovery, ultimately leading to improved patient care.

Conclusion

Repurposing anaesthesia as a stress test for the recovery of consciousness offers an innovative avenue for understanding one of the most complex aspects of human experience. By examining the processes and mechanisms involved in regaining consciousness, healthcare providers can enhance patient safety, optimize anaesthetic practices, and contribute to the broader field of consciousness research. As our understanding deepens, the implications for clinical practice and patient outcomes will be profound, paving the way for advancements in both anaesthesia and consciousness studies.

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WHY BE CAMERA SHY??
USING PHOTOGRAPHIC AI FOR AIRWAY ASSESSMENT

Introduction

Artificial intelligence (AI), a multidisciplinary field at the intersection of computer science and engineering, has witnessed unprecedented growth in recent years. By leveraging sophisticated algorithms, AI systems can replicate and amplify human intelligence, enabling them to reason, learn, and make decisions.(1) This transformative technology has found widespread applications across various industries, including healthcare.

In the realm of anesthesia, AI offers the potential to revolutionize airway management, a critical aspect of perioperative care. Traditional methods of airway assessment often rely on subjective judgments and experience-based approaches, which can lead to errors and complications. AI, on the other hand, can provide objective, data-driven insights, helping to identify potential risks, optimize airway management strategies, and improve patient outcomes.

This narrative review aims to explore the recent advancements in AI-driven airway assessment, highlighting its applications, benefits, challenges, and future perspectives. By understanding the potential of AI in this domain, healthcare providers can leverage this technology to enhance patient safety, optimize resource allocation, and improve the overall quality of anesthesia care.

Is AI the answer??

The accurate prediction of difficult intubation remains a critical challenge in anesthesia, despite advancements in airway assessment techniques and equipment. Traditional methods, such as physical examination and bedside scoring systems, have been used since ages, but their subjectivity in assessment of a difficult airway along with limitations in sensitivity compounds the need for a more evaluative forum. The experience of the individual assessing the airway, especially young clinicians who often manage the airway in emergency situations often unsupervised by a senior colleague, might lead to unanticipated airway complications.(2,3) These complications can have severe consequences, including hypoxemia, hemodynamic instability, and even mortality.

Traditional airway assessment methods, such as the upper lip bite test (ULBT) and modified 'LEMON' criterion, have shown limited accuracy in predicting difficult

intubation when used alone or in combination(4,5) Similarly, the modified Mallampati test (MMT) and Thyromental distance have demonstrated moderate sensitivity of about 30% to 60% and specificity around 60% to 80%, with low positive predictive values. Despite clear guidelines and protocols for managing both anticipated or unanticipated difficult airway; failed airway management, could be a nightmare for any practicing anaesthesiologist.(6,7)

Artificial intelligence (AI) has emerged as a promising tool to address the limitations of traditional airway assessment methods. By integrating subjective factors, such as facial appearance, speech features, habitus, and other poorly known features, AI-powered systems can potentially outperform conventional methods in predicting difficult intubation.(8) The remarkable progress in the application of AI may help to deal with perceived difficulties during airway management.(8) Thus, mastering AI for anticipation and planning in airway management has the potential to surpass the traditional methods of airway management.(9) This review article will explore the role of AI in airway assessment and its potential to improve patient safety and outcomes.

AI-Powered Predictive Models

One of the most significant applications of AI in airway assessment is the development of predictive models. By analyzing patient data, including demographics, medical history, and physical features, AI algorithms can identify patterns associated with difficult intubation. These models can be used to stratify patients based on their risk of airway complications, allowing for more targeted airway management strategies.

Facial analysis algorithms

Several studies have explored the use of AI-driven facial analysis techniques to predict difficult intubation. Cuendet et al. developed an automatic non-invasive face-analysis system using a random forest algorithm based on a data base of about 970 patients to predict difficult intubation based on specific facial features and demonstrated comparable performance to traditional methods.(10) Hayasaka et al. employed a convolutional neural network (CNN) to classify tracheal intubation difficulties, achieving high accuracy even when used by untrained personnel performing endotracheal intubation in emergency scenarios. The model recognises facial contour and predicts difficult endotracheal intubation, with a sensitivity and

specificity of 81.8% and 83.3%, respectively.(11) Tavolara et al. proposed a method using CNN-based front face feature along with attention-based multiple-instance learning to assess difficult airways Facial images for the DL model were extracted from an extensive database to train CNNs on 11 corresponding facial portions to improve the model's overall performance.(12)

More recent studies have further advanced the field of AI-driven facial analysis for predicting difficult intubation. Wang and colleagues applied a semi-supervised DL method to improve the accuracy of their AI model, achieving a good balance between performance and cost. (13) Zhou and colleagues used multiple ML and DL algorithms to identify challenging airways in patients with thyroid disorders.(14)

Speech Features Analysis for Predicting Difficult Intubation

Speech analysis offers a non-invasive and potentially cost-effective approach to predicting difficult intubation. Acoustic parameters analyzed during speech can reflect the anatomy of the upper airway, including the mandible, maxilla, laryngeal tube, and oropharyngeal cavity. Changes in these anatomical structures can affect pronunciation, making speech a potential indicator for difficult airways. Recent studies have explored the association between speech features and difficult airway prediction.

Literature documents an assessment model based on five phonetic features of vowels and formants reliably guided difficult airway prediction. In the Chinese population, phonetic characteristics incorporating formant frequencies and bandwidths effectively predicted difficult intubation and mask ventilation.(15,16) To further enhance the accuracy of AI-based models, researchers have proposed combining acoustic analysis with multi-lingual machine translation techniques. These studies collectively suggest that speech features analysis can be a valuable tool for predicting difficult airways, paving the way for future AI-based systems that can remotely identify patients at risk.

Role of AI in Video-Assisted Laryngoscopes and Flexible Bronchoscopes

AI assisted Video laryngoscopes have significantly improved the visualization of the glottic opening, leading to expedited tracheal intubation times. Their superior first-pass success rates across diverse clinical settings have solidified their position

as the preferred choice for airway management.

In a recent study, researchers aimed to create an AI model that could identify different structures in the mouth using images from video laryngoscopes taken during emergency intubations. Their model, called Configured Mask R, was based on a convolutional neural network and performed very well at recognizing vocal cords, epiglottis, and cricoid cartilage. However, the study had some limitations because the model wasn't fully tested and validated.(17) Carlson and colleagues assessed the effectiveness of augmented reality video laryngoscopy by recording intubation attempts on mannequins. They used four different machine learning algorithms to analyze these videos and time intervals. The algorithms were further refined through training and testing, resulting in an 80% accuracy rate in identifying the glottic opening. The researchers recommended additional improvements to enhance the performance of these algorithms.(18)

Challenges and Limitations

Despite the promising potential of AI-based airway management systems, several challenges and limitations hinder their widespread adoption. The substantial cost of implementing AI systems on a large scale is a significant barrier. Additionally, the accuracy of AI systems can be compromised by biased or inaccurate data. Data privacy and security concerns arise if robust regulations and policies are not in place to protect sensitive patient information. Ethical and legal liabilities associated with AI systems in case of faulty clinical applications have been a subject of ongoing debate. To address these challenges, it is essential to obtain fully informed consent for data use, ensure data privacy and security, develop fair and unbiased algorithms, and create user-friendly AI interfaces.

Future Perspectives

Overcoming the challenges and limitations will be crucial for the successful integration of AI into airway management. Strengthening data size, quality, and validation is essential. A comprehensive understanding of AI systems, including their capabilities and limitations, is necessary. Establishing robust regulations and guidelines to address ethical and legal obligations is also vital. By addressing these factors, the future of AI in airway management holds immense promise. AI-based systems have the potential to revolutionize airway management by providing real-time assistance, improving accuracy, and enhancing patient safety.

Conclusion

The integration of AI into airway assessment has the potential to revolutionize the practice of anesthesia. By improving the accuracy of predictive models, enhancing airway assessment tools, and providing immersive training experiences, AI can help to reduce the risk of airway complications and improve patient outcomes. As AI technology continues to advance, we can expect to see even more sophisticated and effective applications in the field of airway management.

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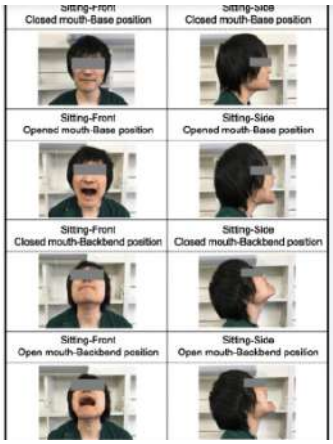
ARTIFICIAL INTELLIGENCE FOR AIRWAY ASSESMENT : A NEW HORIZON

AI is emerging as a powerful and accurate predictor in the assessment of difficult airway. Its potential as a model for photographic algorithms for airway assessment can be a working boon for anaesthesiologists

WHY AI

Traditional bedside airway assessment tests show moderate sensitivity, accuracy and positive predictive value and can be subjective as per expereince .



FACIAL FEATURE ANALYSIS

Facial contour analysis helps in early prediction of difficult mask ventilation and intubation scenarios, even when tested on untrained personnel performing endotracheal intubation in emergency scenarios.

SPEECH FEATURE ANALYSIS

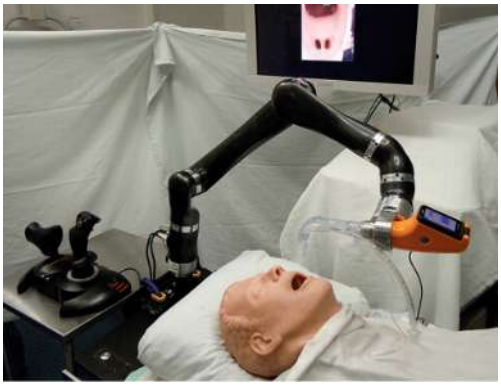
Non-invasive approach to predicting difficult intubation using acoustic parameters analyzed during speech to reflect the anatomy of the upper airway, that can affect pronunciation and effectively hinder intubation

AI ASSISTED VIDEO-LARYNGOSCOPES

AI model that could identify different structures in the mouth using images from video laryngoscopes taken during emergency intubations. or on mannequins improved the visualization of the glottic opening, leading to expedited tracheal intubation times

FUTURE OF AI IN AIRWAY

Strengthening data size, quality, and validation, establishing robust regulations and guidelines to address ethical and legal obligations along with easing out accessibility are of utmost importance for the success of AI models in airway management



BURNOUT IN ANAESTHESIOLOGY: IDENTIFYING THE CHALLENGES AND IMPLEMENTING SOLUTIONS

Being a medical professional comes with it, a fair set of demands sometimes more than comparable to other professionals. Burnout has not been a new onset phenomenon especially in India's healthcare landscape which relies heavily on the dedication and expertise of its medical professionals. The intense pressure to provide quality care, coupled with inadequate resources, long working hours, and limited support, has been taking a toll on the medical community as proven by recent studies. It has been reported in one study that 70% of Indian doctors experience burnout while in another study, it was noted that 60% report feeling overworked and undervalued.

This pervasive phenomenon of burnout has become a pressing concern within the field of anesthesiology like the rest of the clinical branches. It compromises the well-being of anesthesiologists, impacting patient care and the healthcare system as a whole. Considering how it is characterized by emotional exhaustion, cynicism, and reduced performance, it is important to identify the underlying factors contributing to burnout, examine its consequences, and explore strategies for mitigation and prevention.

The most common factor contributing to this high prevalence of burnout is the high pressure environment of anesthesiology. Anaesthesiology is inherently stressful, requiring intense focus and high-stakes decision-making. Whether we work in an operating room or intensive care unit or emergency room doesn't change the pressure levels as we manage life-or-death situations, with expected and unexpected complications. The burden of patient safety and outcomes impact our mental health significantly. This clubbed with the long hours, overnight calls, and weekend duties exacerbate the fatigue, both physical and psychological. As we have been clear, the major reason why this psychological burden falls on anesthesiologists is because of how they develop emotional connections with patients and families, investing in their well-being. Compassion fatigue, a consequence of repeated exposure to patients' pain and trauma, erodes empathy and increases burnout risk. This has escalated exponentially recently especially since the COVID-19 pandemic when we were the only communication between patients and their families. The repeated calls with rapidly changing status of patients and breaking bad news are a day-to-day affair especially when one is in the ICU or emergency settings.

Emotional fatigue also stems from the anxiety of errors and potential litigation. As professionals who strive for perfection, anaesthesiologists are expected to excel at administrative duties, such as maintaining timely health records and perioperative workup that consume additional time which is never unmet due to

our unwavering concern for patient safety.
To comment on the work environment, the OR presents unique challenges, demanding time-sensitive decisions, and interdisciplinary collaboration. Anesthesiologists must navigate complex hierarchies, communicating effectively with surgeons, nurses, and other specialists. Dealing with multiple parties, the patient, their attendants, the surgeons, the seniors of one's own department and other staff is one of the most delicate yet complicated role for us. This in addition to systemic and logistical concerns like inadequate staffing ratios and outdated equipment compound the workload, increasing stress and decreasing job satisfaction. Limited resources, inadequate staff with longer working hours hinder anesthesiologists' ability to adapt a satisfactory routine and in turn tend to compromise optimal patient care.

Although a very complex clinical branch, unawareness of the role of anaesthesiologist amongst common public along with the willful ignorance of the importance of anaesthesiologist by surgeons cause a sense of criticism amongst us. This is aggravated by the relatively less pay in non-governmental setups A lesser evil pertaining to individuals like personality traits of perfectionism and self-criticism predispose anesthesiologists to burnout. Neglecting physical, mental, and emotional self-care exacerbates the rates. Conflicting personal and professional responsibilities blur the lines between work and personal life. Inability to put oneself in front of the demands of work or patient with follow up calls regarding patients and sometimes their relatives with questions regarding a field they can not comprehend add to the tiring routine.

If one is to explore how burnout affects anaesthesiologists' personal and professional lives, it is easily identifiable that burnout leads to disillusionment, reducing motivation and commitment. This decreases overall job satisfaction and higher dropout rate amongst anaesthesiologists. Higher rates of early retirement as well as career changes are noticed amongst anaesthesiologists due to this. Another identier of lack of satisfaction is the attrition of higher ranked medical graduates from opting for the branch. Fatigued doctors may experience decreased reaction times, impaired decision-making, and reduced empathy. This in turn can compromise patient care. Higher rates of depression, anxiety, and substance abuse can interfere with the lives of doctors and patients at the same time.

Recent studies underscore the prevalence of burnout in anesthesiologists. 65% of anesthesiologists experience burnout as per American Society of Anesthesiologists statistics of 2020. Burnout rates are shockingly higher among attending physicians (71%) than residents (55%). This is alarming and needs

immediate attention owing to the quality and attention anticipated in work in such high intensity environment. A few steps that can be implemented to combat burnout are simple and starts at the root level. Students and doctors wellness programmes to improve mindfulness, self care and mental health should be in place at all medical establishments to ensure timely and stigma-free help to those in need. Optimization of workflow by streamlining tasks and reducing or dividing administrative tasks to reduce burden should be ensured at departmental level and individual level. Encouraging open communication and providing support in non-professional set up also will aid in improving team building. When the work increases, utilizing the vast pool of service providers take the overburdening of one individual. All institutes should ensure that even at higher seniority levels, mentorship and peer support is well maintained.

Healthcare organizations, professional societies, and individual anesthesiologists must collaborate to address burnout by providing institutional support in terms of adequate resources for wellness programmes and mental health services. Engaging leader/mentor-led systems can foster open communication and guide new doctors to promote work-life balance. Good camaraderie between colleagues and seniors and juniors promote a healthy work environment. Training and motivation should be given time to time to all professionals to prioritise personal well-being.

In short, burnout in anesthesiology poses significant consequences for patient care, professional well-being, and the healthcare system. Understanding the multifaceted causes and implementing targeted solutions can mitigate its adverse effects. By prioritizing wellness, optimizing workflows, and fostering a supportive environment, we can reduce burnout, promote resilience, and ensure the delivery of high-quality patient care.

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24-HOUR DUTY IS GOOD OR BAD

Long duty hours are a hallmark of medical residency worldwide. In fact, the term “resident” is a relic of times when doctors in postgraduate training lived at the hospital. However, the long duty hours during residency have been a concern for many years. The realization that tired, inexperienced, and poorly supervised doctors make more mistakes than those who are fresh, alert, and closely guided became apparent with the case of Libby Zion, an 18-year-old woman who died while under the care of residents in a hospital emergency department in New York City in 1984. The publicity surrounding this case highlighted and subsequently influenced attempts to regulate the completely unrestricted hours worked by residents in hospital practice worldwide. The debate on duty hours is focussed on the association with the safety of patients, the learning opportunities, and the wellbeing of residents.

Less than 24-hour duty and patient safety

Pro: Fatigue and sleep deprivation associated with longer work shifts can result in lapses in attention and medical errors. This is particularly challenging for anaesthesiology residents who must be constantly attentive in order to detect and rapidly respond to critical changes in a patient’s status.

Con: The relationship between resident’s duty hours and their effect on patient safety is a complex matter as suggested by many studies. In 2008, the National Academy of Medicine recommended that resident physicians work no more than 16 consecutive hours without sleep. In 2011, the Accreditation Council for Graduate Medical Education (ACGME) partially acted on this recommendation, prohibiting shifts exceeding 16 consecutive hours for first-year residents. In 2017, the ACGME reversed its policy and again began allowing shifts of 24 to 28 consecutive hours for all resident physicians after the FIRST (Flexibility in Duty Hour Requirements for Surgical Trainees) trial showed that no changes in the incidence of death or serious surgical complications were associated with shift limits among first-year surgical residents. A recent ROSTER clinical trial evaluated extended-duration work schedules that included shifts of 24 hours or more (control schedules) and schedules that eliminated extended shifts and cycled resident physicians through day and night shifts of 16 hours or less. Resident physicians who were randomly assigned to schedules that eliminated extended shifts made more serious errors than resident physicians assigned to schedules with extended shifts.

Comments: The argument for reducing duty hours in the name of patient safety is not new. At first glance, those in favor of reducing duty hours will be disappointed by the results of FIRST and the ROSTER study. However, these studies need closer inspection before drawing any conclusions. The
authors of the ROSTER group acknowledged that the workload of residents in both the study arms was not comparable. The patient load was higher in the intervention arm (schedules that eliminated extended shifts). Indeed, when a secondary analysis included adjustment for the number of patients per resident as a potential confounder, there was no difference in errors made by them. Therefore, medical errors result from highly complex interactions of multiple factors with failure at many levels of organization. The studies evaluating the relationship between patient safety and duty hours should account for these confounding factors.

Less than 24 duty hours and learning opportunities for residents

Pro: The residents especially postgraduate students in reality are not hospital employees and their primary responsibility is to their own learning, which includes attending structured educational activities outside of the clinical wards, such as directed reading about patients, and preparing for examinations. Thus, while a resident may have the opportunity to go home after duty and sleep, students often have educational responsibilities that continue beyond time spent in the hospital. Currently, in exams, students are mostly evaluated based on their ability to verbalize knowledge regardless of the skill acquired or attitude developed during residency.

Con: 1. The majority of healthcare delivery systems in India rely on resident doctors for service, especially for emergency duty hours. Residents are often given significant responsibilities in patient care, such as performing procedures, managing complex cases, and making treatment decisions with their senior residents. Consultants, merely assume a supervisory role, especially in medical or allied specialties. This provides ample opportunity for residents to hone their clinical skills and gain practical experience in a wide range of medical conditions. Additionally, the sheer volume of patients seen in Indian hospitals provides residents with exposure to a diverse range of cases. Studies have shown that there

is a positive correlation between the number of patients encountered and examination scores such that encountered and each additional 50 encounters were associated with an increase of 1 % correct in exam score.

2. Several studies have shown that duty hours (DH) restrictions had negative impacts on education. One report analyzed the association between resident DHs and in-training examination scores in Japan. The study demonstrated that fewer than 60–65 DHs per week were independently associated with lower performance; however, exceeding 65 DHs per week did not improve performance. Another research further reported that Japanese residents with fewer than 60 DHs per week tended to spend less time in self-study than did those with more than 65 DHs per week

Comments: Reduced duty hours for residents have been shown to affect the learning of residents adversely. This could be due to the less number of patients encountered or the resident's lack of selfmotivation for learning. There is no better way of learning medicine than "learning by doing". As evidenced by the studies, the number of patients seen during residency correlated with better examination results. But it is also true that "Eyes don't' see what the mind doesn't know! Patient-directed reading from the standard books after duty hours is also important. Moreover, the long duty hours prepare residents for the real working scenario of their future. In our country (or even in foreign countries), until and unless you decide to work freelance or join some government hospital as a consultant, most anaesthesiologists work more than 48 hours a week. The RAND Corporation from the US found that anaesthesiologists in practice work an average of 63.7 hours per week and spend approximately 84% of their clinical time providing perioperative care to patients. If you decide to pursue subspecialties such as organ transplant, critical care, or cardiac anaesthesia the duty hours can even be longer.

Less than 24-hour duty and well-being of residents

Pro: Long and demanding working hours contribute to burnout, anxiety, and depression among residents. Fatigue and sleep deprivation may result in reduced alertness and are associated with a 3-fold increase in sustaining percutaneous sharp injuries. One study reported that sleep deprivation by the end of a 28-hour shift, can result in the equivalent of blood alcohol contents of 0.1%. This puts our residents squarely at risk of motor vehicle accidents. A US study found that interns had an increased likelihood of reporting a motor vehicle collision (MVC (OR=2.3) or

near-miss (OR=5.9) after an extended versus non-extended shift.

Con: There are no arguments in support of 24-hour continuous duty hours for residents, given that all of us have experienced these duties, if not during senior residency, definitely up until junior residency. As doctors, we have been advising others to "prioritize Health" but we are conditioned to put ours last. Perhaps it is the ingrained message of "The patient comes first" we are given in our medical training. Given the many tragedies of young doctor's suicide in recent years due to workload or workplace problems, it is high time that we start looking at 24-hour continuous duty by residents and work towards mitigation of its negative impact on their well-being such as "Fatigue risk management (FRM) programs". FRM has been utilized for many years in the transportation sector to combat fatigue among pilots, train engineers, and commercial drivers can be adopted for medical resident doctors. FRM consists of a series of countermeasures that include the use of caffeine, strategic naps, controlled exposure to bright or blue-enriched light during extended or overnight shifts, and appropriate use of recovery sleep.

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MAKING STRESS YOUR PAVING STONE TO SUCCESS

"THE SUCCESSFUL WARRIOR IS THE AVERAGE MAN, WITH LASER-LIKE FOCUS"- BRUCE LEE

As exam approaches near even the smaller hill appears like a big mountain. Final year MD exams are like the worst nightmares, we are so confused as in how to prepare for the exam, how to write the answers and to even how to present cases during practical exams. Above all this confusion is the great of all, "self-doubt". As the final MD exams approaches near it bring a turmoil of emotions mixed with anguish, anxiety and in end the feeling that "let's get this done with". The amount of stress in our profession and added anxiety of exams and thesis is a great recipe for burnout in residency. As always said the "the show must go on", but how bend the scenes in this show to remain sane? As a recently passed out resident, fresh from this roller-coaster ride what did I regret doing and not doing or how even to say how I would want my juniors to have safe ride through this turmoil is what I would like to describe.

As anaesthesia is a less exposed branch in our MBBS curriculum, most of us at the beginning of residency would have no clue as in what it is about and comes with false pretext that is all about machines and anaesthetic drugs. By the time you realize you have to be master of trade of subjects including medicine and surgery, apart from the core anaesthesia; your half residency is done. My readers would of different stages once who are yet to realize or even realized this fact. The fact itself would made all of in guedel stage 3 anaesthesia with no effort, by the time we start our preparation, exams would be at our doorstep like that annoying nosy neighbourhood aunty.

You all may be in different stages of your residency, some who are getting armoured to fight and others waiting for their turns. To ones who would be appearing for exams in coming months, how can you effectively prepare for the upcoming herculean task? "Always stick to the plan", though cliché a time table always help you to stay in track and stop you from procrastination, but always remember prepare an achievable plan, so as to not leave it in the middle and always remember to stick to the timeline and not to read about a topic endlessly and then leaving behind a lot of topics untouched.

"Take enough breaks", whenever we plan we don't consider the requirement of leisure time during preparation, you got relax yourself frequently, if not you are going to exhaust yourself before the "D-day", consider these preparations as marathon race, pace yourself slowly so that you can sprint at the end and finish it gloriously. Ideally take a 5-minute break after a 45 minutes' study session. Also

finding time for some physical activities, would help in concentrating better.
"Never do it alone". It is always advisable to study and discuss the topics in a group. Dividing topics and reading them would help you cover them faster, but always choose your group wisely and make sure these group discussions are utilized properly and not to deviate from the aim.

"Limit your distractions". Try to limit using social media while studying, either make these sessions gadget free or set a time limit. The endless scrolling ends up in helilosing time. If you find that digital media is your foe, take a break temporary break, as you can start it from where you left it later.
"Don't compare". Always identify your pace and your style of preparation, don't try to imitate others and also be don't be anxious after knowing what the other person has done.

"Gold mine". Always refer to previous years question paper, make them your base for your preparation. Try to plan answer for these questions beforehand and build your knowledge based on these. Remind yourself to stick to the basics, because if you run behind the advancements, you might leave the basics which will land you in trouble.

Try to see all the important exam cases in your OTs. This will be of immense help in preparation and will be easy to recollect during exams as you have had the first-hand experience. Along with the theory preparation try to study one drug and one instrument daily. This will help in breaking the monotony and also simultaneously help in preparation for table viva.

During my preparation I had found review articles from "BJA education", "ATOTW" and "Open anaesthesia" to be of immense help along with the standard textbooks and other preparatory books.

Now coming to how to write the exam, always time yourself. Once you get the question paper go through it once before you start writing, divide the entire time into equal parts based on the number of questions, stick to that time and don't exceed the limit, if you are not finished leave space in between and start attempting the next. Always remember even the most prefect answers will not fetch you full marks, but leaving questions unattempted is going to cost you. Answer are to be precise and crisp, marking schemes are according to the points

covered and not how lengthy is your answers. Present your answer with diagrams or flowcharts, try using different colour pens to highlight the important points.

On the previous day of the exam, have adequate sleep and have a light meal before entering the exam hall. If allowed you can carry toffee or small chocolates with you, definitely will act as your thinking cap and carry your water bottles as hydration is very important.

So these are tips that I feel would help you all to face and attempt the exams with ease, always remember you know yourself better and you are the best judge and always make a plan that suits you and not to imitate the other. So happy preparations and see you on the other side.

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PROLOGUE

This poem is about a man who is under anaesthesia..and the anesthesiologist is talking to the subconscious mind of him

INTO THE DEPTHS

You walk in silence..the silence of your mesmerism..

You can see the angelic colors..the beatific creatures.. saintly thoughts cloud your brain..

You wonder if it is indeed going to rain??

Blossoming flowers, seraphic chirping birds engulf your soul, and then you see a majestic upright lushy bole..

An enigma is it?? Or is it the reality? Who shall answer you,with unarguable actuality??

As you gain around, you hear some lubbing and dubbing, and some cavernous puffs,probably I am zinged excessively you huff...

Oh my..a light at last..and faint mumbling you hear..someone has come to rescue you from phantasm and with full energy you gear...

Oh dear good man of mine..that someone is me..and shall forever and ever work for thee...

Author
Dr Samiksha Khanuja
AIIMS, New Delhi

THE EMPATHY WALK

The walk to the operation theatre
Brings us face to face with life,
As we ponder on our abilities,
It brings a feeling of pride
As we help a patient in his struggle with cancer
As we guide a patient in her birthing process
As we enable a child to walk straight again
As we ensure an elderly gets up free from the pain
We are able to heal and help patients gain

When we add empathy to the skills that we train
And we walk again into the operation theatre
We set the stage for a real-life play
We create a dream world for those gone astray
We create the possibilities of a new found life
We help rebuild a world that needed healing
And finally, we go home thinking the walk changed the world for the better.

Author
Dr Farah Husain
Lok Nayak Hospital

THE ‘SMART’ DIGITAL ANAESTHESIOLOGIST

From Schimmelbusch mask to target controlled inhalation,
From Intravenous titration to target controlled IV infusion ,
From blind block to targeted injection under USG visualization,
From pulse palpation to hitech multipara monitor precision,
From hand written documentation to record’s digitalization
What are we missing is the big question?

Where is the tactile sensation in simulations?
Where is the eternal vigilance with artificial intelligence?
Where is sixth sense with mind boggled by applications?
With technology at tip of finger where is the patience?
With information flux where is the emotional intelligence?
Whats the missing link.....

“Amalgamation”
Of digitalization with the innate clinician!
Of simulation with the real life situation,
Of empathy with scientific rationalization,
Of safe anaesthesia with an effective communication ,
Of the conventional anaesthetist with a multi gadgeted clinician
Let Artificial intelligence be our asset and not our substitution!

Author
Dr Ruchi Kapoort
UCMS & GTBH, Delhi

SHERO: BETTER THAN HERO!?

They say liberty ,but has she got liberation?
They say free world ,but has she got freedom ?
They say fairer sex ,but is it really fair?
They say ladies first ,but is she numero uno!

She learns better ,knows more n yet has to prove her mettle,
She is in haste all the time for she needs to settle,
Leave her comfort zone “parental home “;thats the ritual ,
She is judged by each n every one if she chooses to be single!

Yet bravo the woman empowerment!
She does all chores with her own arrangement,
She is damn tired, yet shows no resentment,
Powered by her self esteem ,she rises on all occasions
Never buckling under pressure tackles situations,

Women emancipation is not merely a fight,
Its a cohesive existence where she gets a right,
To choose her life, her ways ,her persona ,her individuality,
Not just governed by the rules made by masochistic society!

Author
Dr Ruchi Kapoor
UCMS & GTBH, Delhi

THE ANAESTHETIST'S SYMPHONY

In sterile halls where silence reigns,
He walks with care through endless lanes,
Where ICU beeps and whispers blend,
With surgical lights that never end.

His hands, a bridge to quiet sleep,
Where life and breath he vows to keep,
He watches hearts beat faint or strong,
In moments short, yet hours long.

The morning sun, a fleeting glance,
As scrubbed in blue, he starts his dance,
Between the beds of fragile lives,
Where every breath, a hope survives.

He drifts to surgery, the stage,
A steady hand, a quiet sage,
He soothes with drugs and tender care,
And guides them to a world that's bare.

But as the shifts stretch long and deep,
He dreams of home, a place with peace,
Where children's laughter fills the air,
And love, like balm, is always fair.

In stolen moments, he finds grace,
A fleeting smile, a warm embrace,
Though sleep eludes, and time is thin,
He finds his peace somewhere within.

For balance comes in waves, not tides,
Between the roles where he resides,
An anchor in the stormy seas,
He breathes, he heals, he lets it be.

The life he leads is never still,
Yet in its flow, he finds his thrill,
To juggle all, with quiet might
The anaesthetist, through day and night

Author
Dr. Nitin Choudhary
AIIMS, Delhi

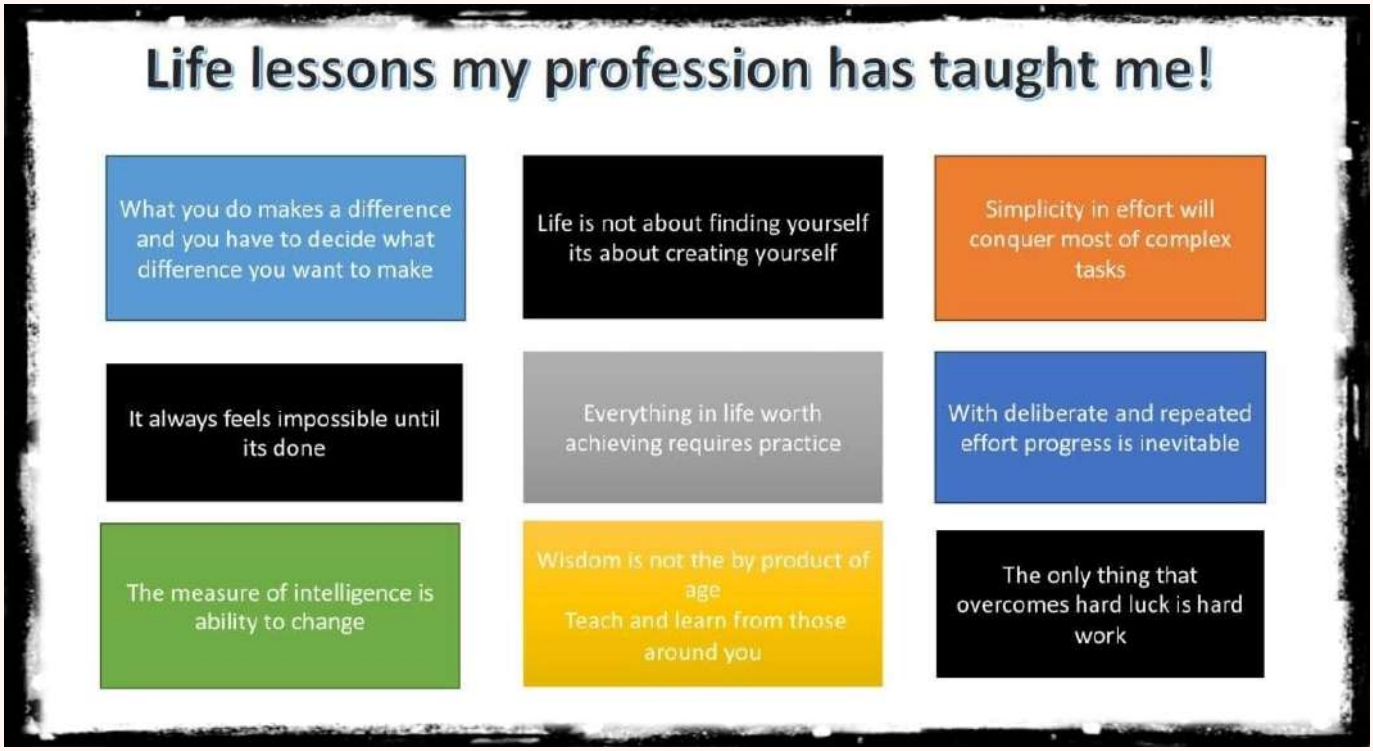
PLENTY TO PONDER IN THE PRESENT TIMES!!!

Author
Dr Rohan Magoon
ABVIMS & Dr RML Hospital, Delhi, INDIA

PAINTING

Author
Abhishek Nagarajappa
AIIMS, Delhi

LIFE LESSONS MY PROFESSION HAS TAUGHT ME!



Author
Dr. Anjali Kochhar
VMMC and SJH

MONTHLY MEET CALENDER

Sr No	Month	Institution/ Venue	Contact Person
1.	December 2023	West zone at Aakash Health care	Dr Anshu Gupta(GC) & Dr Namita sharma
2.	January 2024	East zone at RGSSH	Dr Arvind Arya and Dr Geetanjali(GC)
3.	February 2024	AIIMS	Dr Lokesh Kashyap, Dr Puneet Khanna & Dr Nishkharsh Gupta (GC)
4.	March 2024	VMMC & Safdarjung Hospital	Dr Sujata Choudhary & Dr Nishkharsh Gupta (GC)
5.	April 2024	MAMC	Dr Munisha Agarwal & Dr Ridhima Sharma(GC)
6.	May 2024	ESIC Group of Hospitals	Dr Prasad CGS & Dr Sudhir Gupta
7.	June 2024	Sir Gangaram Hospital	Dr Jayshree Sood & Dr Ridhima Sharma (GC)
8.	July 2024	LHMC	Dr Maitree Pandey & Dr Ridhima Sharma (GC)
9.	August 2024	UCMS	Dr R.S. Rautela & Dr Geetanjali (GC)
10.	September 2024	PGMER & RML	Dr Neerja Banarjee & Dr Ridhima Sharma (GC)

ISA
Indian Society of Anaesthesiologists
Delhi Branch
Eternal Vigilance

ISACON DELHI 2024

63rd ANNUAL CONFERENCE OF INDIAN SOCIETY OF ANAESTHESIOLOGISTS DELHI BRANCH

THEME - ANAESTHESIOLOGY IN THE DIGITAL ERA: INTEGRATING EDUCATION AND TECHNOLOGY WITH EMPATHY

Workshops 27 September 2024 | Conference 28 29 September 2024

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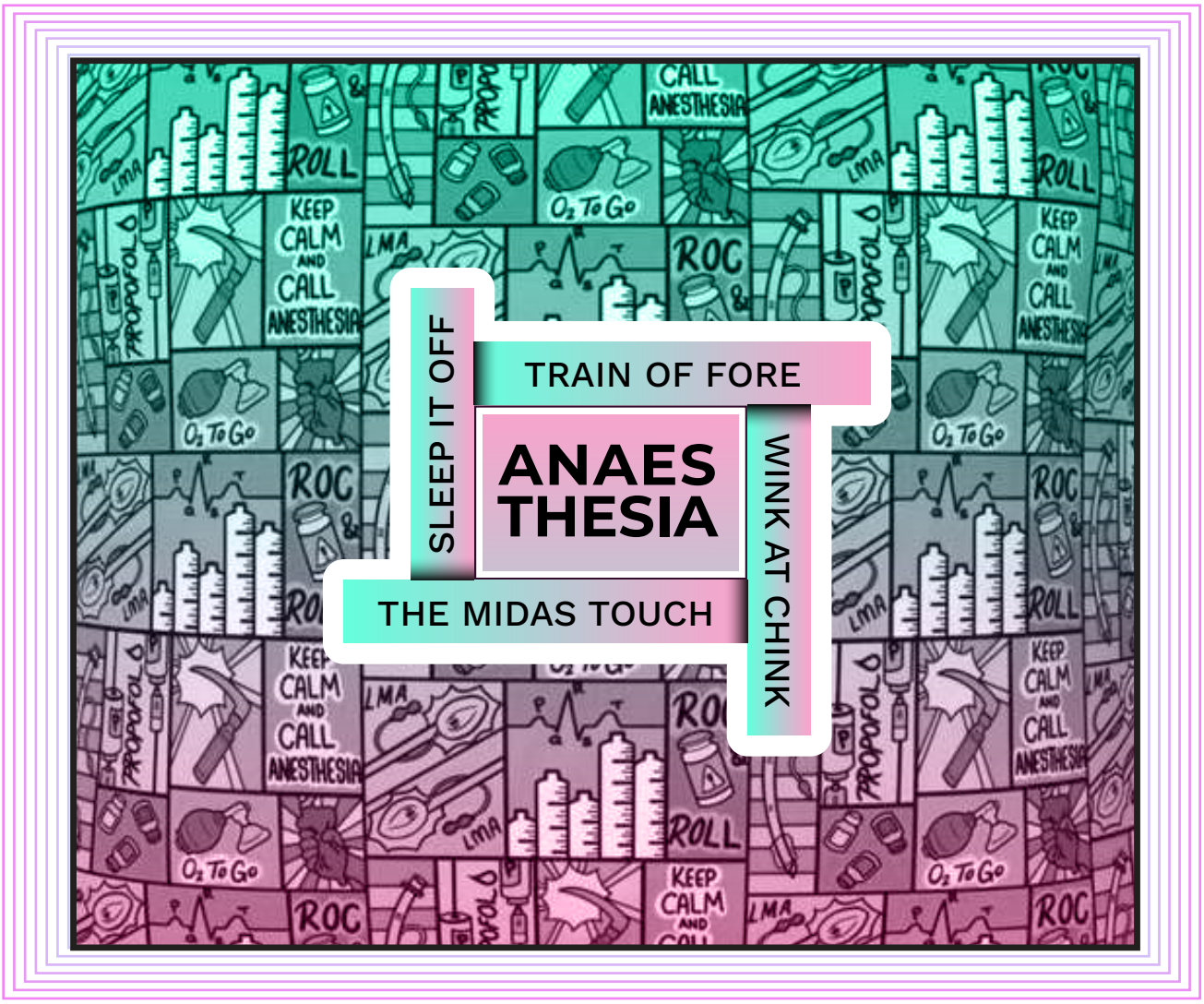

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