INTROSPECT

VOLUME 7 | APRIL 2025

E-JOURNAL BY
OGSOS

EDITOR'S NOTE

To all the OGSOS colleagues,

With immense pleasure and pride, we bring forward to you new edition of our own introspect journal. As caregivers for the society, we are not just going to look after the physiological ailments, but also the social, emotional, and systemic challenges that comes with it.

This journal is an effort to improve certain aspects of our life. The journal covers one of the most prevalent social hazards of today that is "obesity". One of the famous idioms is "Practice what you preach" but as clinicians we hardly have the time or the intention to do so ourselves. All clinicians advise a healthy lifestyle for their patients but seldom do they practice it themselves, so we have a whole chapter dedicated towards improving your life and make it a bit healthier.

There is a increased incidence of suicidal death and self-harm among the resident doctors. Even senior doctors are crumbling due to long hours, mental pressure and lack of support. It is high time that we normalize seeking help and foster peer support groups. Help the hand that heals us and prioritize mental well-being for all.

Last but not the least are the nightmare cases which teaches us about humility and resilience.

Obstetrics is everchanging and sometimes life throws you a curveball. These are the days that test will not only test your skills but also your judgement and intuition. Sharing these experiences will help us to learn and grow better as clinicians.

It is vital that we create safe spaces to discuss and debrief such experiences, not as forums for blame, but for learning and healing. Reflective practice must be part of our professional journey, allowing us to grow not only as doctors, but as humans.

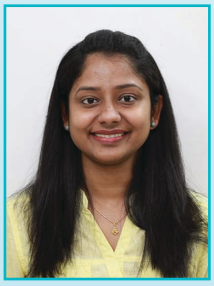
We would like to thank all the authors for their painstaking efforts towards this journal. May this article find you in a healthy space mentally and physically. Grateful to our president, secretary, all past presidents and office bearers for the immense support and guidance at every step

May we continue to uphold our clinical excellence with compassion, courage, and consciousness.

HAPPY LEARNING!

Dr. KAVITHA NAGARAJAN,
MD OG, FRM, MRCOG, MICG.,

Dr. MADHUMITHA ARUNKARTHIK
MS, DNB, FRM, FMAS, FCG.,



Dr. NIVEDITHA.A
MD, DNB, FRM, FICOG.,

PRESIDENT'S NOTE

Dear Esteemed Colleagues and Readers,

It is with great pride and enthusiasm that I address you in this edition of Introspect, our cherished platform for advancing knowledge and fostering collaboration in obstetrics and gynecology. I am happy that "Introspect" the brain child of our past president Dr Jayamala has taken shape and continuing to be as a platform for our interaction as contributors to a journal which we consider as our own. As we navigate the evolving landscape of women's healthcare, our commitment to excellence, innovation, and compassion remains steadfast.

This issue of Introspect showcases research, insightful clinical perspectives, and inspiring stories from our community. From latest advancements to addressing disparities in maternal health, the contributions within these pages reflect the dedication and ingenuity of our members. I encourage you to engage with these works, share your expertise, and contribute to the ongoing dialogue that drives our field forward. This edition is to remind us all, that our tireless editors have been persisting in getting articles, editing and bringing forth E journal on a quarterly basis and an acknowledgement of their efforts which may be missed when we tend to overlook non printed materials.

As a society, we stand at the forefront of transformative change, advocating for evidence-based practices and equitable care. Let us continue to support one another, mentor the next generation, and champion the health and well-being of women worldwide.

Thank you for your unwavering commitment to our shared mission. I look forward to seeing you at our upcoming events and continuing this journey together.

Warm regards,

Dr.N.SARAVANA KUMAR

President, OGSOS

SECRETARY'S NOTE

Respected Seniors and my dear colleagues,

It gives me immense pleasure to present our next edition of "Introspect" and the first release of 2025-26 , the official e-journal of the OGSOS. This edition stands as a testament to our society's commitment to academic excellence, clinical insight, and professional growth.

Introspect is more than just a journal — it is a platform that reflects the collective intellect, experience, and enthusiasm of our members. The articles featured in this issue represent a diverse array of topics in obstetrics and gynecology as well as general interest articles , ranging from evidence-based clinical updates and original research to case reports and thought-provoking opinion pieces. Each contribution has been meticulously curated and peer-reviewed to uphold the highest standards of scientific integrity and relevance.

I extend my heartfelt thanks to all the authors who have taken the time to share their work, as well as to our esteemed editorial board, whose dedication and rigorous standards have shaped this journal into a scholarly endeavor we can all be proud of.

This issue of Introspect also captures the spirit of our society — one that fosters knowledge-sharing, encourages academic inquiry, and nurtures professional camaraderie. As we look to the future, it is our hope that this journal continues to inspire and serve as a source of learning and reflection for practitioners, residents, and students alike.

On behalf of the OGSOS, I thank each and every contributor, reviewer, and supporter who has helped bring this edition of Introspect to life. Let us continue to grow together — in knowledge, in service, and in excellence.

Dr.V.DHAVASHREE

Secretary, OGSOS

THE OBSTETRIC AND GYNAECOLOGICAL SOCIETY OF SALEM

Dr.N.SARAVANA KUMAR

President OGSOS

Dr.V.DHAVASHREE

Secretary OGSOS

Dr.SURESH KRISHNAAMORTHI

Treasurer OGSOS

EXECUTIVE COUNCIL MEMBERS

Dr.ANUREKHA J.P

Dr.ASHWIN RAO

Dr.CHITRA K.S

Dr.DHIVYA G

Dr.HEMALATHA G.B

Dr.INDUMATHI KRISHNAN

Dr.JEYALAKSHMI K

Dr.KAVITHA NAGARAJAN

Dr.KIRANA SELVI

Dr.KIRUTHTHIGA SREEDHARAN

Dr.MADHUMITHA ARUN KARTHIK

Dr.MALATHY PRIYADARISINI

Dr.NIVEDITA A

Dr.PALLAVI D

Dr.PREMAPRIYA G

Dr.SATHYA SUDHAKAR

CONTENTS

Nightmare In Obstetrics 1

Energy Sources In Laparoscopy 6

Obesity In Women: A Growing Concern – A Clinical Perspective 18

"From Healers To Victims: Unveiling The Silent Crisis Of Doctor Suicides In India" 22

Being Oerweight During Pregnancy And After Birth 26

Health And Fitness For Doctors: A Lifestyle Medicine Approach 31

Dr.CHANDRAKALA MARAN

NIGHTMARE IN OBSTETRICS

The word OBSTETRICS has become synonymous with NIGHTMARE at times. Practice of Obstetrics has been in existence since ancient times. Obstetrics, initially intertwined with midwifery, has evolved from ancient practices to a modern medical specialty, marked by advancements in understanding pregnancy, labor, and child-birth, with significant improvements in maternal and fetal outcomes. The earliest records of gynecological care can be traced back to ancient Egypt and Greece, with Soranus of Ephesus AD 98–138 making notable contributions to understanding pregnancy, labor, and birth complications.

Before the 18th and 19th centuries, midwifery was the established practice, with obstetrics not been recognized as a distinct medical specialty. Man-midwifery" or Obstetrics began to emerge in the 17th century, with figures like William Smellie refining techniques and instruments like forceps. Key Advancements and Innovations then followed. In Victorian times, Simpson championed chloroform anesthesia, and Lister pioneered antisepsis, leading to safer childbirth practices. The introduction of the Caesarean section was another significant step in Obstetric care. These advancements dramatically reduced maternal mortality rates. In the 20th century, ultrasound and electronic fetal monitoring became widely used.

Research teams had developed technologies like electronic fetal monitoring, fetal scalp blood gases, and ultrasound imaging technologies which have revolutionized the care of women with complicated pregnancies and gave birth to the subspecialty of maternal-fetal medicine.

This subspecialty of maternal-fetal medicine addresses the complexities of High-risk pregnancies. Obstetrics continues to evolve, with ongoing research and technological advancements leading to safer and more effective care for pregnant women and newborns.

The focus of obstetrics has shifted towards improving Maternal health and well-being in the prenatal period to endure the unforseen complications in the intrapartum period.

Further,In India, We emphasize the “Respectful maternity care” impressing it as a fundamental human right and reitrating dignity, privacy, confidentiality, and freedom from harm during pregnancy, childbirth, and the post-partum period, ensuring informed choices and continuous support.

Nevertheless, despite all the Advances and Adopted Practices Surprises do spring up to the Obstetricians with sudden occurrence of Rarest complications which have a theoretical mention in the Textbooks and Literature.

Here we describe one such Rare Case – “Primary Colporrhexis”

A 31-year old, second gravida was booked in our hospital at 36 wks of gestation. She had no comorbities. She had previous full term normal vaginal delivery of an alive baby weighing 2.75kg. At 39 weeks and 4 days gestation she was admitted for induction of labour as she had borderline liquor. Induction was done with 2 doses of misoprostol 25mcg kept vaginally 4 hrs apart. 2 hours after placing the 2nd misoprost she had spontaneous rupture of membranes with clear liquor draining PV. With strong uterine contractions. She delivered within 45minutes a live healthy baby of 3kg weight. Placenta was delivered by AMTSL. Bleeding per vagina was within normal limits. During visualization of cervix and vagina prior to closure of episiotomy, omentum was seen coming out of upper part of posterior fornix of vagina. An irregular transverse rent was found and felt behind the cervix. Cervix was intact Uterus had contracted well. There was no excessive bleeding from vagina. Patients vitals were stable for our relief. Vagina was immediately packed and patient was shifted to OT after explaining about the unexpected complication and obtaining informed consent from patient and her relatives. Under anaesthesia, Visualisation of cervix and Examination of uterus was done. They were found to be intact. No extension of episiotomy seen. There was a transtransverse tear of 5 cm involving the posterior fornix. The left edge of the tear was found to be extending slightly upwards for about 2 cm. Ultrasound Abdomen and Pelvis was done and Pelvic hematomas were ruled out. Omentum was seen protruding through the rent. The edges were delineated, omentum was pushed inside. The delineated edges of the rent were sutured with 1-0 vicryl with intermittent sutures in two layers. Complete hemostasis was ensured. The apex of the episiotomy was clearly seen to be separate from the forniceal tear. Episiotomy wound was then closed in layers. Postoperative period was uneventful. She was discharged in a stable condition with advice to avoid constipation, intercourse and lifting heavy objects for 3 months.

DISCUSSION:

Colporrhexis is defined as rupture of vaginal vault or upper one third of the vaginal wall. The Term and the condition had found mention in the previous editions of standard textbooks like Williams Obstetrics and in Clinical Obstetrics by Mudaliar and Menon in the chapter on Injuries to parturient canal. Probably due to its rarity this condition is not described in the latest Editions.

Colporrhexis is subdivided into primary or secondary, spontaneous or traumatic, complete or incomplete. Primary colporrhexis has been described as a vaginal vault tear not associated with cervical or uterine extension. Secondary colporrhexis is a vaginal vault tear which is associated with a rupture that has originated in the uterus or cervix and then extended to involve the vagina. Incomplete colporrhexis include rupture of vaginal epithelium and the muscularis, whereas complete includes overlying peritoneum as well. Most cases of colporrhexis are of traumatic origin associated with unskilled instrumental delivery, vaginal birth after C-section, myomectomy, precipitate labour and injudious use of oxytocics.

The aetiology of the rarer primary spontaneous colporrhexis is unknown and previous vaginal trauma has been implicated. Precipitate labour and use of oxytocics in labour are other factors described in literature. A misdirection of the uterine axis due to a pendulous abdomen leading to marked anteversion of the uterus, ventroflexion of the uterus, evacuation of a full rectum after an enema, and prolapse leading to altered blood supply to the vagina are the other factors responsible.

LITERATURE CITATIONS:

Colporrhexis is an unusual but dreaded complication which occurs spontaneously or due to trauma. The term 'Kolporrehxis' was first coined in 1875 by Hugenberger who described 40 cases from the literature. Later, there were a lot of publications in olden literature. Colporrhexis without uterine rupture is termed primary colporrhexis and it is rare. Colporrhexis is usually associated with uterine rupture (secondary colporrhexis) and in a teaching institute its occurrence was reported in 7.5% of cases. In 1932, Mahfouz reported its association in 2.5% of uterine ruptures. Spontaneous colporrhexis was described in multiparous women especially in grandmultiparous women and its occurrence in a primigravida is reported in only one case. The aetiology of colporrhexis was well described in the 1950s where it was stated that Colporrhexis used to occur most commonly as an extension of cervical tear or lower uterine segment tear due to unskillful and brutal attempts at delivery of the fetus by instrumental means. Vaginal misoprostol has been one of the

oxytocics incriminated in lacerations of uterus and cervix. The safe dose interval of misoprostal for labour induction is 25 μg once in 4 h, though various regimens exist and the uterine rupture rate varies from 1.4% to 5.6% with the usage of misoprostal. A case of cervical laceration associated with the use of misoprostol was reported by Oyelese et al.

CONCLUSION:

In our case the patient was a 2ndgravida with a previous full Term normal delivery. She now had a vaginal delivery without instrumental assistance, but had a colporrhexis. The reasons for vault rupture in our case were probably,

1. Pendulous abdomen- lax abdominal wall causing altered utero vaginal axis exerting undue pressure over an associated weak vaginal vault.
2. Precipitate Labour- Rapid progression and very short active phase of l abour and second stage of labour may have led to shearing effect of the descending head on the upper posterior vaginal wall.
3. Vaginal misoprostol although it was used with a safe dose interval could have caused this vaginal laceration.

Spontaneous trauma to genital tract during vaginal delivery without instrumentation is very rare. Though such cases are rare we should keep in mind that unprecedented concealed rupture of vagina and uterus do occur. Each women in labour should be monitored carefully and more vigilance is required in the unsuspected multigravidas especially those with lax abdominal muscles. Precipitate labour is common in multiparous women. Vigorous uterine contractions with a noncompliant vaginal wall is incriminated in vaginal lacerations. Although it is not possible to modify these contractions we have to analyse if controlled fetal head delivery may help to avoid such complications. Vaginal misoprostol has been implicated in cervical lacerations and uterine ruptures. Further research would throw light if misoprostol could cause vault lacerations even if used in a proper dose interval. Diagnosis of colporrhexis is clinical. Concealed associated Intraperitoneal haemorrhage can be assessed with ultrasound scan of abdomen and pelvis. Management depends on the maternal hemodynamics and extent of tear. If patient is stable as assessed by vitals and there is no excessive haemorrhage or evidence of retroperitoneal hematoma, suturing of the laceration is done by vaginal route under anaesthesia. If patient is hemodynamically unstable with signs of inaccessible extension or retroperitoneal hematoma laparotomy and appropriate management is mandatory.

Apart from the above scenario many unforeseen events can surprise us during Pregnancy and Postpartum. Therefore practicing Obstetrics demands Extreme vigilance and "All is Well" can probably be assured only beyond the Puerperium.

My sincere thanks for Salem OG Society for this opportunity to give an Article and My Best wishes for the Society to continue this Initiative of Continuous Education.

Dr.SURESH KRISHNAAMORTHI

ENERGY SOURCES IN LAPAROSCOPY

The idea of this article is to provide the basics of energy sources, physics in electrosurgery, how they work, what advantage they provide over other energy sources and how they can be used safely.

HISTORY

In Prehistoric era heat was used as hemostatic

In ancient days in Egypt heated oil was used to reduce bleeding

Becquerrel – first reported principles of electro surgery in early 19th century.

I891- D'Arsonoval showed it was possible to pass high frequency AC through body without producing shock.

1926 – application of electrosurgery by electrosurgical generator by William Bovie.

There are lot of Energy Sources in Laparoscopy

1. Monopolar electrosurgery
2. Bipolar electrocautery
3. Advanced bipolar devices
4. Ultrasonic Energy
5. Lasers

ELECTRO SURGERY IN LAPAROSCOPY

First, we should understand the basics of electro surgery.

If we don't have knowledge of the electrosurgery unit then we will become a dangerous surgeon.

WHAT IS ELECTROSURGERY?

Electro surgery is the use of high frequency, alternating current to raise intracellular temperature in order to achieve vaporization or the combination of desiccation and protein coagulation.

In electrosurgery electrical current is converted into mechanical energy, and mechanical energy is converted to heat energy.

ELECTROCAUTERY

Electrocautery is use of direct current to high resistance metallic conductor; the tip of the instrument has the metallic conductor which will get heated so the tip will be hot which is transmitted to tissues, electro cautery was in use upto year 2000.

FUNDAMENTAL OF ELECTROSURGERY

We all know that electricity will always reach the ground so there should be a circuit or closed loop.

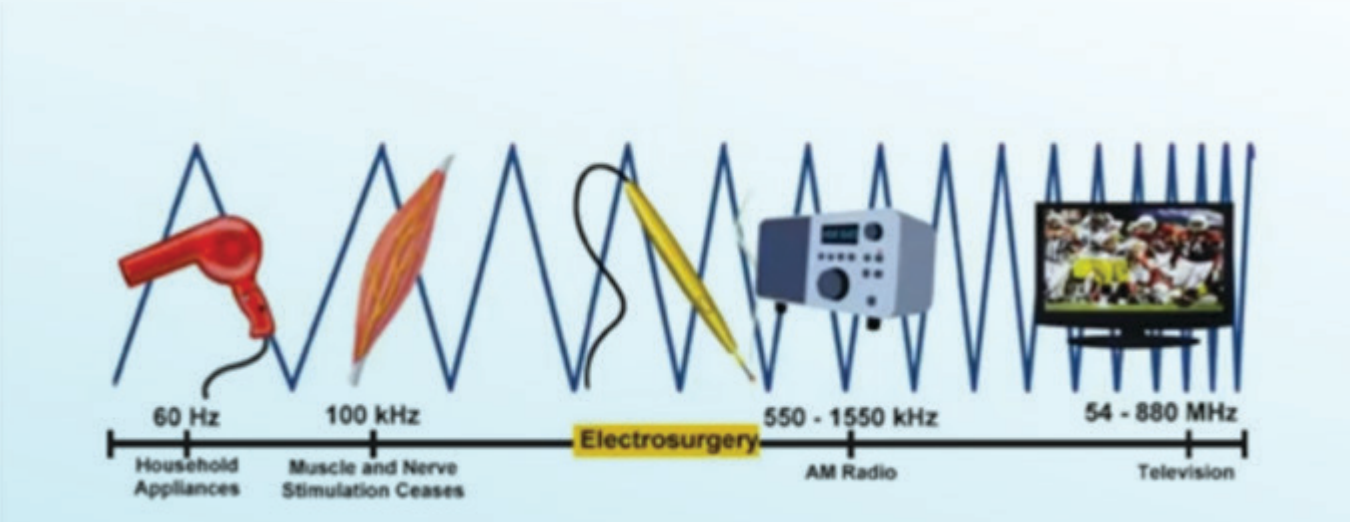
Electricity passes from the part of highest concentration to lowest concentration through easiest route.

Electrical circuit is composed of generator, active electrode, patient and patient return electrode

Standard electrical current alternates at a frequency of 60 cycles per seconds (60 Hz). This is the frequency which we get in our household output.

Nerve and muscle stimulation ceases at 100000 cycles/ seconds (100KHz)

The frequency at which electrosurgery works is 500 KHz TO 3.3 MHz which is the Radiofrequency range.



HOW DOES RF ELECTROSURGERY WORK?

Alternating current when applied to cell continuously switching polarity will lead to oscillation

↓

Intracellular ions oscillate back and forth

↓

Results in frictional forces that elevate cell temperature

↓

Used to create cellular and tissue effects like vaporization, desiccation, coagulation and fulguration

TEMPERATURE AND CELLULAR IMPACT

Normal body temperature is- 37^0
At 50^0 C - cell death occurs over minutes
At 60^0 to 90^0 C- Protein coagulates
Cell Desiccation
Instant cell death
At 100^O C- cellular vaporization

CARBONIZATION - when the temperature rises up to 400^O-600^O C the organic material breaks down to elemental carbon so it becomes black and called as carbonization

CARAMELIZATION- when much more heat is given the elemental carbon breaks down into sugars and forms caramel this is called caramelization

This caramelization produce sticky nature to the tip of the instruments

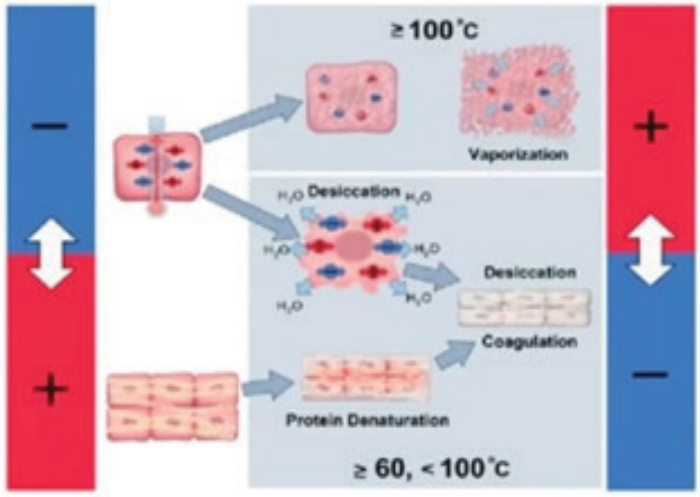
BIO EFFECTS OF RADIOFREQUENCY

When the temperature is between 60-90^O cell membrane breaks down.

Then water evaporates and cell shrinks resulting in formation of white coagulum

Protein denatures as temperature increases and when it cools it allows renaturation of entangled unwound collagen strands

Bio effects of Radio Frequency



ELECTRO SURGICAL UNIT

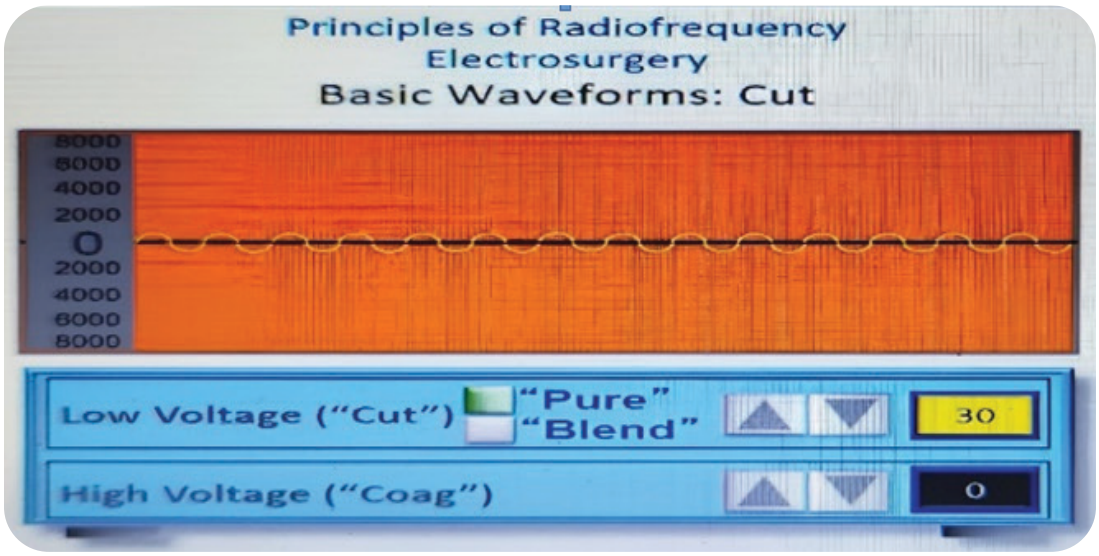
Electrosurgical unit does 3 things

1. The regular domestic current which we get from the wall output is 60Hz and this is converted into radio frequency (500000 Hz) by this unit. If this low frequency wall current is directly given to the patient it produces tonic clonic contractions because of depolarization and repolarization of the cells but if we increase this low frequency current to radio frequency current which goes beyond the threshold of the cells necessary to depolarizes nerves and muscles of the body there is no such contractions.
2. adjustment of wattage and indirectly the voltage P=V
3. Control of duty cycle

BASIC WAVE FORMS

CUT CURRENT

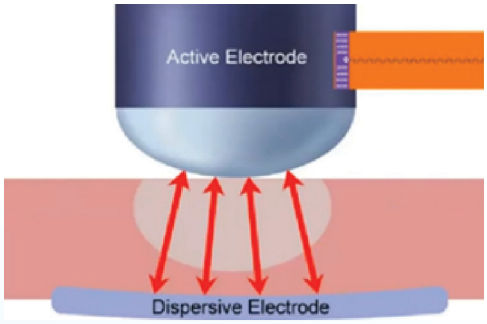
1. It is a low voltage current
2. The current flows 100% of the time through the circuit (duty cycle is 100%)
3. It is a Sine wave with alternative current

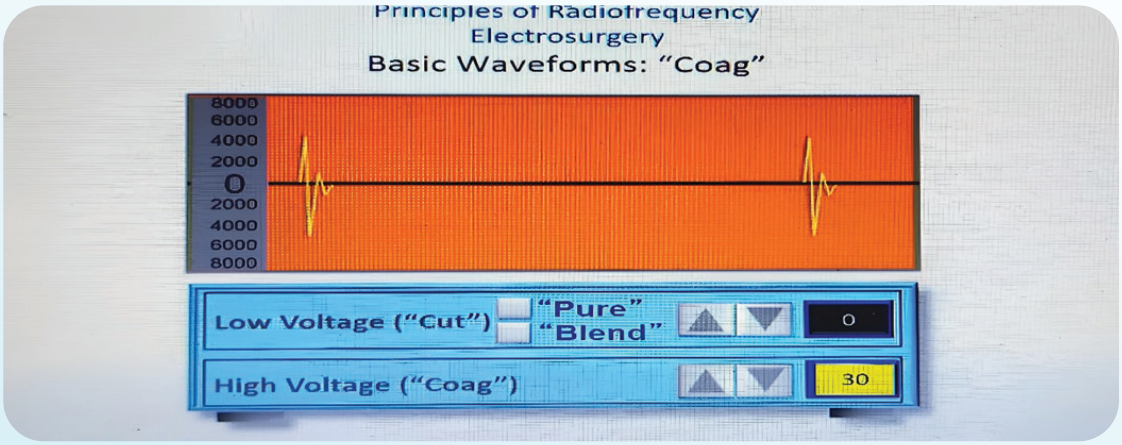


COAGULATION CURRENT

1. It is a high voltage current
2. Current flows in intermittent burst pattern (duty cycle is 6%) so this current is concentrated and given high thermal effects
3. This high thermal effect causes lot of collateral damage

So, the cut current is better than coagulation current





BLEND CURRENT

Blend current is not a mixture of cut and coagulation current but there is variation in the duty cycle. Depending upon this different machine have different blends – blend 1 has 50 % of the duty cycle, blend 2 has 60 % of the duty cycle, blend 3 has 80 % of the duty cycle.

LAPAROSCOPIC ENERGY SOURCE

It remains the responsibility of the surgeon to acquire knowledge on the range of tissue effects available with various laparoscopic energy sources

How these devices impart their tissue effects and the associated benefits and risks for each device

MONOPOLAR ELECTROSURGERY

In monopolar electrosurgery the active electrode in one pole and the patient return electrode in the other. The main difference between monopolar electrosurgery and the other energy modalities is that electric current flows through the patient

CONVENTIONAL BIPOLAR ELECTROSURGERY

In bipolar electrosurgery the active and return electrodes are the two jaws of the energy source.

A major advantage of conventional bipolar over monopolar electrosurgery is the ability to seal vessels up to 5mm in diameter

Disadvantage of conventional bipolar electrosurgery include lateral thermal spread that will continue until device activation ceases. There is no audio signal from the ESU to inform the surgeon.

ADVANCED BIPOLAR ELECTROSURGERY

In addition to the features of conventional bipolar electrocautery advanced bipolar energy sources are revolutionary in several ways

There is computer-controlled tissue feedback system which control each device

The tissue impedance between the two jaws is monitored with continuous adjustment of the generated voltage and current to maintain the lowest possible power settings to achieve the deserved tissue effects at which time an audio signal alerts the surgeon that the end point has been reached. The advantage of this is the risk of lateral thermal spread as well as charring of tissue and adherence of tissue to the device jaws is minimized.

There are lot of these advanced bipolar energy sources like LIGASURE, ENSEAL, plasma kinetic system.

The tissue effects available with advanced bipolar electrosurgery are owing to the conversion of electric energy into thermal energy and include tissue desiccation and vessel

sealing (coaptation), there is a cutting blade into the device jaws on LIGASURE and ENSEAL that decrease the need for laparoscopic scissors. Feedback control system automatically discontinuous energy delivery when the seal cycle is complete

But these advanced bipolar energy sources are really expensive

Nowadays there are lot of Indian companies which has much more advanced bipolar electrosurgery technique where the tissue is cut precisely after sealing the vessels. This is called the Bipolar shearer.

These device seal vessels up to 7mm in diameter due to technological advance such as tissue impedance monitoring up to 4000times/second, temperature sensitive material in the device jaws that optimizes tissue temperature at ~ 100°c.

These device seal vessels up to 7mm in diameter due to technological advance such as tissue impedance monitoring up to 4000times/second, temperature sensitive material in the device jaws that optimizes tissue temperature at ~ 100°c

ULTRASONIC DEVICES

Ultrasonic energy source converts electric energy into thermal energy and mechanical energy.

Mechanical energy at 55000 vibrations/ sec disrupts hydrogen bonds and form a coagulum. The temperature is 80 to 100° C when compared to electrocoagulation which is 200 to 300° C.

The Harmonic Ace+ has adaptive tissue technology that provides an audio signal to the surgeon when changes in target tissue are noted

Advanced modes can seal vessels up to 7mm

Advantages of ultrasonic devices include less instrument traffic, less smoke generation, less lateral damage.

The newer generator has good tissue dissolving capability

Disadvantages include tissue of lateral thermal spread injuries, higher and more prolonged instrument tip temperature relatively expensive

HYBRID DEVICES

Laparoscopic devices have recently been developed that uses combination of several technologies that are available in the market.

1. LIGASURE advance – monopolar and bipolar electrosurgery- company covidian
2. Thunder beat- ultrasonic and bipolar technologies- company Olympus.

These instruments seals vessels upto 7mm and the seal withstands three times that of systolic pressure. The feedback control system automatically discontinues energy delivery when the seal cycle completes.

LASER

Argon enhanced electrosurgery also known as argon beam coagulator, it produces surface coagulation. Combines argon gas with electrical energy to increases the effectiveness of electro surgery current. Argon gas is used because it has certain properties like it is inert, non combustible, easily ionized by Radio Frequency energy, creates bridge between electrode and tissue, heavier than air, displaces nitrogen and oxygen.

CREATING TISSUE EFFECTS

Monopolar	Bipolar
- vaporization - desiccation - coagulation - fulguration	- desiccation - coagulation

Advanced bipolar cautery	Ultrasonic technology
- desiccation - coagulation - blade TISSUE transection - transection	- desiccation - coagulation - mechanical tissue transection

Vaporization- It is a low voltage sparks with continuous cutting current and the tissues are cut

Fulguration- High voltage sparks, coagulation current, hemostasis of small vessels < 1mm

Desiccation - hemostatic of small vessels < 1mm

Coagulation- sealing of small to medium vessels < 2mm

COMPLICATIONS OF ENERGY SOURCES

1. Stray current injury (SCI)
2. Lateral thermal spread.

Lateral thermal spread differs for each energy source.

Ultrasonic 1-4 mm

Vessel sealer 1-4mm

Bipolar 2-6mm

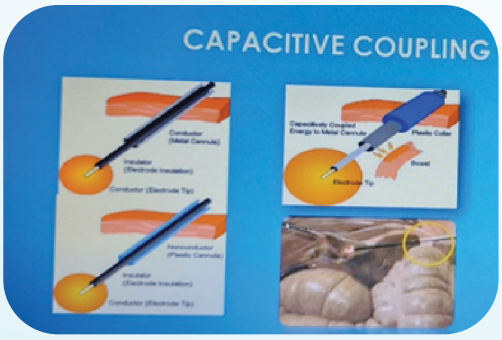
Monopolar not well established.

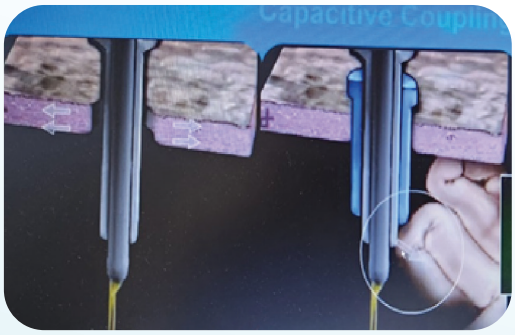
MECHANISM OF STRAY CURRENT INJURY

Stray current injuries occur mostly in monopolar energy source. The different stray current injuries are capacitance coupling, direct coupling, insulation failure.

CAPACITANCE COUPLING

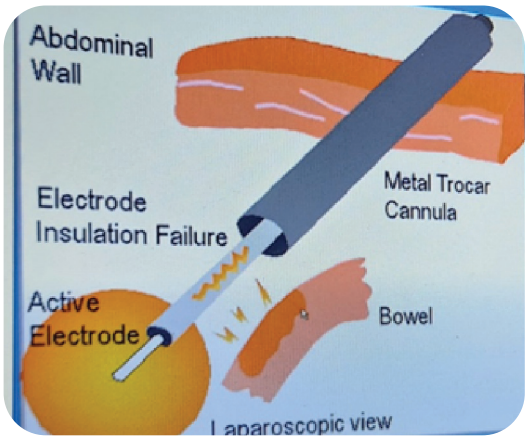
We know that a capacitor is a cylinder. According to physics any cylinder when current is passed through it will take the electrostatic charge. Usually when we use the metallic ports the electrostatic charge will be dispersed through the abdominal wall. But if we use a plastic outer sheath and a reducer which is a metal cannula, the metal canula will get charged as usual and this charge will not be transmitted to the abdominal wall which is prevented by the plastic cannula. As the inner metal cannula acts as a capacitor it will transfer the current to the inside viscera. This is called as capacitance coupling. This can be prevented by not mixing plastic and metal.





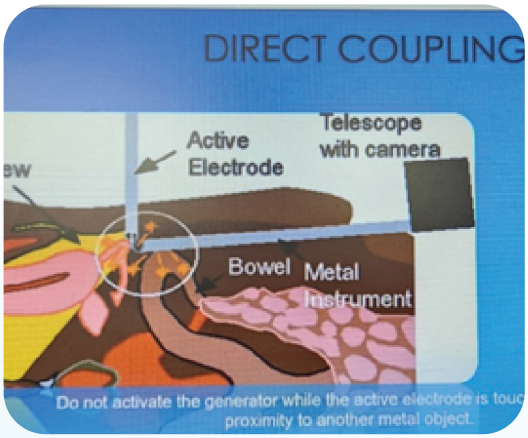
INSULATION FAILURE

The most common insulation failure is a micro breakage which is not visible to the naked eye. This small defect allows electrical current leakage. very high density capable of producing a full thickness visceral injury. Routine checking of the insulation by the visual inspection and HiPOT testing's are poor predictor of insulation integrity of insulation.



DIRECT COUPLING

Direct coupling occurs when any of the active electrode touches the uninsulated instrument like telescope, needle holder, suction cannula, aspiration needle, myoma spiral etc.



Diagnosis Of electrosurgical injuries

Most of the SCI sustained during monopolar electrosurgery at laparoscopy is often not apparent. The site of injury is usually outside the field of vision of the surgeon. If it is mild these injuries typically do not present for 7 to 10 days after surgery

In the early stages small bowel perforation may not result in overt peritonitis if patient has low grade temperature moderately increased abdominal discomfort and a failure to recover at the usual rate. It should raise the suspicion of bowel injury.

PREVENTION OF SCI

1. Inspect insulation periodically
2. Lowest possible power setting
3. Use low voltage (cut) waveform
4. Brief intermittent activation < 3 secs.
5. Disconnect hand instrument immediately after use.
6. Do not activate in direct contact or close proximity with another instrument
7. Use bipolar electrosurgery
8. Use Metal cannula system

ACTIVE ELECTRODE MONITORING

1. In this technology the capacitance coupling current is continuously channeled back to the ESU via the energy source
2. The ESU will shut down if insulation failure is detected
3. AEM prevents SCI best but- AEM do not prevent lateral thermal spread.

CONCLUSION

To conclude cutting wave form is low voltage current coagulation wave form is high voltage current. Ideal laparoscopic electrosurgical unit should have AEM technology along with other functions.

What energy source should laparoscopic surgeon use?

Advanced bipolar, ultrasonic vessel sealing device, hybrid energy sources have produced good revolution in laparoscopy.

The preference of the energy sources depends upon the cost and availability of the devices, personal preference and experience.

Practical tips on how to choose an ideal ESU?

1. We should always purchase high frequency generator because high frequency generator uses less voltage
2. purchase a generator which has Anti electrode monitoring (AEM)
3. Patient return electrode

• Metal plate – this is not used nowadays. It is dangerous because the edges are sharp and when the sharp edges touch the bony land marks current is passed through it and it will produce burn. So, to prevent this we should cover this plate with cloth soaked in saline so

that sharp edges are not exposed

- Silicon type – commonly used which is reusable.
- Adhesive type – silver foil, this is the best one. It is mostly disposable. Contact area – should be at least 100 sq.cm (equal to the palm size)

4. It should have bipolar cut also which is called as the bipolar shearer, most of the Indian companies have come out with this technology.

5. If we plan for hysteroscopic surgeries then get a generator which can use bipolar cut with saline.

Dr. Malathy priyadarisini

Obesity in Women: A Growing Concern – A Clinical Perspective

Good morning, readers!

Obesity isn't just about carrying extra weight—it's a complex medical condition that affects nearly every aspect of a woman's health. While it impacts both men and women, women face unique hormonal shifts, metabolic changes, and societal pressures that make weight management even more challenging. As a gynecologist and obstetrician, I want to shed light on the reasons behind obesity in women, the health risks it brings, and what can be done to manage it effectively.

Why Are More Women Becoming Obese?

Over the past few decades, obesity rates have skyrocketed, with women being disproportionately affected. According to the World Health Organization (WHO), more than 15% of adult women globally are obese, and the numbers are rising fast, especially in developing countries. This is concerning because obesity isn't just about appearance—it increases the risk of serious health conditions, including diabetes, heart disease, and complications related to pregnancy and reproductive health.

Why Are More Women Becoming Obese?

Hormonal and Metabolic Factors

PCOS (Polycystic Ovary Syndrome)*: This hormonal disorder, affecting 6-12% of reproductive-age women, leads to insulin resistance, increased male hormones (androgens), and difficulty in managing weight.

Thyroid Disorders: An underactive thyroid slows metabolism, making weight gain almost inevitable and weight loss frustratingly slow.

Menopause: The decline in estrogen levels leads to fat storage shifting from hips and thighs to the abdomen, increasing the risk of metabolic disorders.

Pregnancy and Postpartum Changes: Many women gain excess weight during pregnancy and struggle to lose it after childbirth, setting the stage for long-term obesity.

Emotional and Behavioral Factors

Stress and Emotional Eating: Women are more likely to turn to food for comfort when dealing with stress, anxiety, or depression. This leads to patterns of overeating, often with high-calorie, unhealthy foods.

Sociocultural Pressures: Unrealistic beauty standards and constant dieting can cause harmful cycles of weight gain and loss (yo-yo dieting), making long-term weight control difficult.

Lifestyle and Environmental Factors

Lack of Physical Activity: Women often have multiple responsibilities work, childcare, household duties—which leave little time or energy for regular exercise.

Dietary Choices: Processed foods, sugary beverages, and high-fat meals are easily accessible but contribute significantly to weight gain. Women in many cultures also tend to eat last or less, leading to nutrient deficiencies that further slow metabolism.

Obesity Risk in Pregnancy

Obesity during pregnancy poses significant risks to both the mother and the baby. Primary care services should ensure that all women of childbearing age have the opportunity to optimize their weight before pregnancy. Weight and BMI should be measured during preconception counseling or contraceptive consultations to encourage women to achieve a healthy weight before conception.

Preconception Weight Optimization: Women should be informed that weight loss between pregnancies reduces the risk of stillbirth, hypertensive complications, and fetal macrosomia. Additionally, weight loss increases the chances of successful vaginal birth after cesarean (VBAC).

Folic Acid Supplementation: Women with a BMI of 30 kg/m² or greater who wish to become pregnant should be advised to take 5 mg of folic acid supplementation daily, starting at least one month before conception and continuing through the first trimester. This helps reduce the risk of neural tube defects in the baby.

How Obesity Affects Women's Health

Heart and Metabolic Risks

- Increased likelihood of high blood pressure, cholesterol issues, and diabetes.
- Higher risk of heart disease and stroke due to chronic inflammation and fat accumulation around vital organs.

Reproductive and Gynecological Issues

Infertility: Obesity disrupts ovulation and menstrual cycles, making conception difficult.

Pregnancy Complications: Increased chances of gestational diabetes, preeclampsia, and the need for a cesarean section.

Endometrial Cancer: Excess body fat leads to higher estrogen levels, which can cause abnormal cell growth in the uterus.

Joint and Bone Problems

- Extra weight puts immense pressure on the knees and hips, leading to arthritis and chronic pain.

Mental Health Concerns

- Higher rates of depression, anxiety, and body image issues, often worsened by societal stigma around weight.

What Can Be Done?

Nutrition and Lifestyle Changes

- Eating whole foods rich in protein, fiber, and healthy fats instead of processed and sugary foods.
- Engaging in at least 30 minutes of physical activity most days—be it walking, dancing, swimming, or yoga. Strength training also helps maintain muscle mass and boosts metabolism.

Medications

- In some cases, doctors may prescribe weight-loss medications that help with appetite control and fat absorption. These are typically recommended for women with severe obesity or obesity-related health problems.

Surgery for Severe Cases

- Surgical options like gastric bypass or sleeve gastrectomy are available for those struggling with extreme obesity and related health conditions. These procedures help with significant weight loss and improve metabolic health.

Mental and Emotional Support

- Therapy, especially cognitive-behavioral therapy (CBT), can help women manage emotional eating and develop healthier habits.
- Support groups provide a safe space to share struggles and stay motivated.

Regular Health Check-ups

- Routine screenings for diabetes, heart disease, and gynecological conditions can help catch problems early and prevent complications.

A Collective Effort for a Healthier Future

Obesity in women isn't just an individual struggle—it's a growing public health issue that needs attention. As healthcare providers, we need to create a supportive, judgment-free environment where women feel empowered to take charge of their health. Education, early intervention, and personalized care plans can make a huge difference in tackling this challenge.

By taking small, sustainable steps, we can help women lead healthier, happier lives—one decision at a time.

Warm regards,

Dr. Malathy Priyadarisini

MBBS, DGO (Gynecologist and Obstetrician)

Dr ANUSHA

"From Healers to Victims: Unveiling the Silent Crisis of Doctor Suicides in India"

Background:

There has been a steady rise in suicide among medical professionals in recent years. We lost a gold medallist obstetrician, a renowned urologist, an academically excellent dermatologist and many more in the last few years. According to a 2018 study published in JAMA Surgery, female physicians are particularly at risk, with suicide rates among female doctors being more than double those of women in other professions. Male physicians also have a higher suicide rate than their non-medical counterparts. According to Indian Journal of psychiatry 30 suicides were reported among medical professionals between 2016 to 2019. Between 2020 to 2022, 118 suicides were reported among medical students and professionals according to AMHS.

Why doctors die:

Despite their advanced education, expertise, and ability to diagnose and treat physical illnesses, many doctors struggle with their own emotional and psychological well-being. The high rates of suicide among doctors are a tragic reminder that even those who seem most resilient are vulnerable to mental health crises.

One of the most significant contributors to suicide risk among doctors is burnout. Long and odd working hours, high patient volumes, and constant pressure to perform at a high-level lead to emotional exhaustion.

In a profession that demands perfection, the fear of making mistakes can be overwhelming. Doctors form close bonds with their patients, and witnessing suffering, death, and

emotional distress can take a psychological toll. The responsibility of making life-and-death decisions can be overwhelming, and many doctors feel the weight of those decisions long after they have left the hospital.
Financial instability or the stress of meeting the financial expectations of a practice can exacerbate mental health challenges.

Changing Practice:

Doctors face mental health challenges due to the changing trend in medical practice. There is a paradigm shift in the patient's approach to doctors.
Two to three decades ago, Doctors were the sole subject matter experts and the only way for society to understand about disease nature and treatment options and hence their advice and solutions were followed to the dot and even revered. But nowadays Doctors are the last person patients approach next to WebMD, Google, YouTube, ChatGPT and what not.

"Take folic acid in first trimester! Reduce caffeine intake in pregnancy! Take an ultrasound to check for fibroids, PCOS causes irregular cycles, Etc." - They got this all from the internet already. Patients and attenders expect information and insights beyond the web from doctors and doctors strive to meet these expect ations.

To make this situation worse – increasing number of medico legal cases is adding fuel to the fire. An error of judgment becomes negligence in court. When we save a patient - it is our duty to do so. When we lose a patient - without any benefit of doubt - **we are sued for negligence.**

So.. People changed, their idea about doctors and medicine being a noble profession - changed. But doctors haven't changed, our medical curriculum hasn't changed, the long sleepless hours of residency, bullying of residents, tiring paperwork, constant stress and being over the edge all the time to excel, cutthroat practice ……Nothing has changed.

A healthy change in mindset is the need of the hour for doctors to keep their cool and save their mental health.

How to cope?:

It's time we evolve and become the NextGen doctors. We must be prepared to be bombarded by A -Z questions from the internet by patients and clarify the misconceptions they get from the web.

Our high-risk practice should be safeguarded with professional indemnity as even the most skilled professionals may encounter unexpected complications or errors.

It is time we accept that doctors are now looked upon as just another professional and we also begin to see this as our profession instead of living in the fantasy that being a doctor is our life.

Being a doctor is a part of our life – Of Course the best part of our lives. We have other roles to perform and excel too - being a mother, father, daughter, daughter in law, etc.

Work life balance is a Mission impossible for doctors who run their own hospitals as they terribly fail to separate work and life. Missing family time and spending late hours in OPD is not that worth anymore.

Imagine… In the middle of the night ... you are standing next to a patient with prolonged second stage of labour , there is sudden bradycardia … anaesthetist is 30 mins away and the station is not enough for an instrumental delivery either ... the rush of adrenaline and stress cortisol that plummets in your body causes the same amount of distress to you as the intrauterine foetus is experiencing. Do we all realise that we are always in an overdose of stress cortisol? Are we doing the due diligence to destress ourselves after work? Are we doing a debrief for ourselves after we lose a patient? Are we all aware that PTSD is not just for patients, it is for us too !!!

Taking care of our physical health and mental health is equally important as our patient's health. Engaging in a group practice with competent colleagues will ease our tension. Associating with societies of concerned specialty and being in good rapport with our society senior colleagues will let us feel safe and expand our horizons.

Let us all say NO to professional criticism, which is an important trigger for litigations.

Creating the awareness of mental health in medical curriculum is of paramount importance. We were expected to do 36 hours shifts without any complaints and without any mistakes in residency, physical or emotional burnout was never addressed. At least we change it now. Doctors should be taught to recognize the signs of burnout, depression, and anxiety, both in themselves and their colleagues. There's a persistent stigma in healthcare that discourages healthcare professionals from acknowledging mental health struggles, as it might be seen as a weakness or failure. Creating an environment that encourages open conversations about mental health is crucial.

It is time we teach our budding doctors about the true colours of outside world, the trend of increasing litigations and the importance of work life balance to make them mentally and emotionally prepared before they are off to practice.

In the place of clinical rounds where we discuss the previous LSCS and hernia case presentation over and over again - let us take time to enlighten the young residents about medico legal cases, successful judgements and Good clinical practice to save oneself from

false allegations and bully.

Conclusion:

Successful doctor is not the one who performed a lakh surgeries and died due to Myocardial infarction while operating. Successful doctor is the one who prioritises peace of mind than being on top up of the rat race ending up in anxiety or depression. Working hard for financial stability than luxury, practicing mindfulness and focusing on meaningful relationships and hobbies will help us find the harmony between successful career and peace of mind. Let's achieve the real definition of health - **a state of complete physical, mental and emotional wellbeing and save the healers from becoming victims of mental health illnesses.**

Dr.D.PALLAVI

BEING OERWEIGHT DURING PREGNANCY AND AFTER BIRTH

OBESITY – A CURSE

As days pass on obesity in pregnancy has become a daily routine in our opds More women are becoming pregnant who are overweight or obese at the time of Conception

Who and the national institute of health define normal weight as a body mass index (BMI) of 18.5- 24.9kg/m2, Overweight – 25 – 29.9 kg/m2, Obesity – bmi >=30 kg/m2

CATEGORISATION

CLASS 1 -30-34.9KG/M2

CLASS 2 – 35 – 39.9KG/M2

CLASS 3 - >= 40KG/M2

BMI will be usually calculated in first antenatal visit

PHYSIOLOGICAL WEIGHTGAIN IN PREGNANCY

1. Weight Gain Of Upti 12.5kg Can Be Regarded As Physiological In Pregnancy

2. Say That Is Accounted By The Fetus & amnii, uterine Nass , Breast Hypertrophy &physiological Oedema ,someother Can Be Made Of Water &fat

3. Mostly This Will Be Get Rid After Delivery And Diuresis That Follows

RISKS OF HIGH BMI IN PREGNANCY

1. Most Women Have A Straight Forward Pregnancy& Have Healthy Babies .

2. Still Higher The Bmi Greater The Risk

THROMBOSIS
GESTATIONAL DIABETES
HIGH BLOOD PRESSURE & PREECLAMPSIA
MENTAL HEALTH PROBLEMS, CAESAREAN SECTION
CARDIAC DISEASE,PULMONARY DISEASE &OBSTRUCTIVE SLEEP APNOEA
RISKS FOR BABY

1. Thrombosis pregnancy itself is a hyperthrombogenic state , risk increases further to cause dvt which can be life threatening usually assesed during the first antenatal visit and monitired throughout pregnancy and sometimes medications like low molecular weught heparin is given

2. Gestational diabetes – if bmi is 30 or above , you are three times more likely to develop gdm compared with women with a bmi under 25. Test for gdm will be offered between 24 – 28 weeks and managed accordingly

3. High blood pressure & pre eclampsia – if bmi is 30 or above , risk of pre eclampsia is 2- 4 times higher compared to thosa with bmi under 25. Blood pressure & urine will be monitored at every visit & may be further increased over 40 yrs age , previous h/o of preeclampsia , else blood pressure high before pregnancy. Can add low dose aspirin if

presents with these risk factors

4. Mental health problems – being overweight slightly increases the chance of mental illness

5. Cardiac disease & pulmonary disaese - due excessive water retention , routine ecg & echo is recommened

RISKS FOR BABY

1. Overall likelyhood of a miscarriage in early pregnancy is 1 increaes to 1 in 4 (25%)

2. Overweight or obesity before preganancy or in early pregnancy can cause neural tube defects, macrosomic babies (weighing more than 4 kgs),still birth , sudden intrauterine death

3. Prematurity, postdatism

4. Malpresentation, shoulder dystocia, cephalo peilvic disproportion

5. NICU care may be often needed

HOW RISKS TO MOTHER & BABY BE REDUCED ????

1. healthy eating – healthy diet will benefit both mother and baby during pregnancy and after birth, referred to dietician. Trying to lose weight during pregnancy is not recommended .However by making healthy changes to your diet , yoy may not gain any weight during pregnancy.

2. exercise – physical activity will benefit both mother & fetus .Begin with 15 mts of continuous exercise , three times per week , increasing gradually to 30 mts sessions every day . Some examples swimming , walking and yoga

3. advise weight loss even before conception thgrough dietary modification or weight loss of 4.5 kgs between two pregnancies

4. increased dose of folic acid – reduces the risk of neurral tube defect , if bmi>= 30 ,daily dose of 5mg of folic acid is recommended . This is slightly higher than the usual dose .

SUGGESTED RECOMMENDATIONS FOR THE CLINICAL CARE OF OBESE WOMEN BEFORE, DURING & AFTER PREGNANCY

1. Pre pregnancy – counsel for pregnancy weight loss through lifestyle modification, including diet & regular exercise, encourage folate supplementation

2. Antenatal – booking

3. Weigh all mothers & calculate bmi to identify individuals at risk advise on risks of obesity in pregnancy

4. Discuss recommended weight gain during pregnancy according to pre – pregnancy BMI refer to dietician for dietary advise

5. Suggest regular moderate – intensity activity ,unless contraindicated recommend detailed anomaly scan & serum screening for congenital abnormality

6. Anaesthetic review –consider anaesthetic review before delivery

7. Regional anaesthesia usually preferred unless contraindicated

8. Anticipation of probles & effective preparartion interms of equipment , monitoring & personnel general anesthesia ,if required should be delivered with tracheal intubation & controlled ventilation

9. General – plan delivery to allow optimum management by experienced obstetricians

10. Postpartum

Postpartum care includes close monitoring ,early mobilisation & physiotherapy , high dependency seeting may be appropriate

Consider prophylactic postpartum antibiotics

Judicial use of neuraxial ,oral & iv opiods for postoperative pain encourage breastfeeding & provide specific support

Encourage weight loss & increased physical exercise prior to next pregnancy

Assess thrombosis risk postpartum & ensure gooid hydration & early mobilisation after any operative delivery & specific

Antithrombotic interventions includng elastic compression stockings & pharmological thromboprophylaxis if indicated

Consider extended thromboprophylaxis after discharge post natal visit at 6 weeks

AREAS FOR FUTURE RESEARCH

1. The current available evidence supports the development of specific management strategies to decrease maternal & fetal risks in pregnancies complicated by maternal obesity . However , ongoing research in specific areas is required

2. RCOG 53rd study group on obesity & reproductive health reported that while there is a good body of observational evidence showing a positive association between maternal BMI & risk of pregnancy – related complications

3. Now there is a clear NED for prospective randomized studies in obese pregnant to assess the effects of diet, physical activity & lifestyle changes on maternal ,fetal & neonatal outcomes

CONCLUSION

Obesity is a major risk for pregnancy complications and carries with it a huge social and financial costs . There is a clear need to establish national and regional prevalence rates for maternal obesity so that maternity services can be appropriately organised to ensure suitable care is provided for “at risk” women. National clinical care guidelines for health professionals are needed to minimise and manage the risks associated with obesity in pregnancy . National concensus standards of care are now being developed and will soon be available to guide clinical mangement

Dr. Sornam

Health and Fitness for Doctors: A Lifestyle Medicine Approach

As doctors, we dedicate our lives to caring for others, often at the expense of our own health. Long working hours, high-stress environments, and irregular schedules put us at risk for burnout, chronic diseases, and mental exhaustion

However, prioritizing our health is not just beneficial for ourselves-it enhances our ability to provide quality care to our patients.

Lifestyle medicine, based on six fundamental pillars, provides a sustainable approach to health and fitness. The 6 pillars are

1. **Healthy Eating**
2. **Exercise**
3. **Restorative Sleep**
4. **Positive social connections**
5. **Stress management**
6. **Avoidance of addiction**

By integrating these principles into our daily routines, we can lead by example and cultivate wellbeing amidst our demanding profession.

1. Healthy Nutrition: A Lifestyle Medicine Approach

Nutrition is a cornerstone of lifestyle medicine, influencing not only our physical health but also our mental and emotional well-being. A whole-food, plant-predominant diet has been shown to prevent,

manage, and even reverse chronic diseases such as diabetes, hypertension, and heart disease. Here's how to align your nutrition with the principles of lifestyle medicine:

(i). Emphasize Whole Food, Plant-Based Diet

Fruits, vegetables, whole grains, legumes, nuts, and seeds are packed with fibre, vitamins, minerals, and antioxidants. These nutrients help reduce inflammation, support gut health, and promote longevity.

EAT FOOD, NOT TOO MUCH, MOSTLY PLANTS Mostly plants don't require vegan or vegetarian, but the diet should consist mostly of plants

(ii). Minimize Processed and Ultra-Processed Foods

Refined sugars, processed meats, and packaged foods contribute to obesity, metabolic diseases, and inflammation. Choosing whole, minimally processed foods enhances overall health and energy levels. Here's an example of moving Wheat from a least-processed whole food to a highly processed food: Wheat – Chapati – Biscuits – Bakery cake

(iii). Prioritize Healthy Fats

Incorporate heart-friendly fats from sources like almonds, walnuts, cashews, flaxseeds, chia seeds, sesame seeds, pumpkin seeds, sunflower seeds, cold-pressed mustard oil, coconut oil, groundnut oil, sesame oil, extra virgin olive oil, homemade ghee, full-fat yogurt (curd/dahi), paneer, fatty fish. Omega-3-rich foods such as flaxseeds and walnuts support brain function and reduce the risk of cardiovascular diseases. Not all fats are harmful, and an extreme fear of dietary fat is unnecessary. In fact, consuming small amounts of healthy fats enhances satiety and satisfaction, helping us eat mindfully and prevent overeating.

(iv). Balance Macronutrients

A combination of complex carbohydrates, healthy proteins, and fats ensures sustained energy, stable blood sugar levels, and optimal metabolic function. Most foods are a combination of many food groups and may contain varying quantities of macro and micro nutrients. Whole grains, legumes, and plant-based proteins should form the foundation of meals.

An active individual looking at losing fat and retaining muscle should consume about 1 to 2 g/ kg body weight of protein and combine it with weight training. A sedentary individual not looking at any change in body composition should be consuming about 0.8 g/ kg body weight.

Proteins have the highest levels of thermic effect of food (TEF). This is the number of calories burnt just to digest the particular nutrient. The TEF of protein is 25-35, meaning 20-35% of the energy from the protein is utilized just to digest it effectively. Thus, the body expends a lot more energy in the process of digesting proteins than in digesting carbohydrates or fats.

(v). Hydrate Well

Adequate hydration supports digestion, circulation, and cognitive function. Water should be the primary beverage, while excessive caffeine, sugary drinks, and alcohol should be minimized.

(vi). Practice Mindful Eating

Eating with awareness - savouring flavours, chewing slowly, and avoiding distractions - improves digestion, prevents overeating, and fosters a healthier relationship with food.

2. Physical Activity: Staying Active Despite a Busy Schedule

Physical inactivity among doctors is a common issue, often due to demanding schedules. However, even small increments of movement throughout the day can significantly impact health. Exercise helps prevent musculoskeletal disorders, enhances endurance for long hours of standing, and reduces the risk of hypertension and obesity, boost mood, supports weight management and promotes longevity. A well-rounded fitness routine should include endurance, strength, flexibility, and balance to promote optimal health.

The Four Key Components of Fitness

To achieve overall well-being, your exercise routine should include:

1. **Endurance (Cardiovascular Fitness)**
2. **Strength Training**
3. **Flexibility**
4. **Balance**

Guidelines for an Active Lifestyle

The World Health Organization (WHO) recommends:

* **150–300 minutes of moderate-intensity or 75–150 minutes of vigorous-intensity aerobic activity per week.**
  Strength training at least twice a week.
* **Flexibility and balance exercises at least 2–3 times a week, especially for older adults.**
* **Reducing sedentary time by incorporating movement throughout the day.**

Simple Ways to Stay Active

Walk More – Take the stairs, walk while talking on the phone, or go for a post-meal stroll.

Stretch & Strengthen – Include yoga, resistance exercises, or bodyweight workouts.

Make it Fun – Dance, cycle, play a sport, or try a fitness class.

Use Functional Movement – Carry groceries, do household chores, or engage in gardening.

Work on Balance – Stand on one leg while brushing teeth, practice tai chi, or do stability ball exercises

SARCOPENIA : The Silent Muscle Loss & How to Prevent It

Sarcopenia is the progressive loss of muscle mass, strength, and function with aging. It typically starts in the 30s and 40s, but its effects become more noticeable after 50, increasing the risk of falls, frailty, and metabolic diseases. As healthcare professionals, doctors dedicate their lives to healing others, often at the cost of their own health. Long working hours, night shifts, and high stress levels contribute to physical inactivity, poor nutrition, and muscle loss-all of which increase the risk of sarcopenia (age-related muscle decline). Maintaining muscle mass is essential for sustaining stamina, preventing injuries, and ensuring long-term well-being.

While aging is inevitable, muscle loss is preventable with the right lifestyle choices - it can be prevented and even reversed with a proactive approach. Strength training, protein-rich nutrition, an active lifestyle, and proper recovery are the pillars of muscle preservation. Start today—because strong muscles mean a stronger life.

3. Sleep, Melatonin, and Circadian Rhythm: Why Doctors Must Prioritize Rest

For doctors, sleep deprivation is often seen as part of the job, with long shifts, emergencies, and unpredictable schedules disrupting natural sleep cycles. However, chronic sleep loss affects cognition, decision-making, immunity, and long-term health, increasing the risk of burnout, metabolic disorders, and cardiovascular disease.

Circadian Rhythm & Its Impact on Doctors

The body's biological clock, or circadian rhythm, regulates sleep-wake cycles, metabolism, and hormone balance. Night shifts, erratic schedules, and artificial lighting disturb this rhythm, leading to:

* Reduced cognitive function, affecting clinical judgment
* Increased risk of hypertension, obesity, and diabetes
* Lowered immunity and higher susceptibility to infections

Melatonin: The Sleep Hormone

Melatonin, the body's natural sleep-inducing hormone, is suppressed by excessive blue light exposure (from screens, hospital lights) and chronic stress. Irregular sleep schedules further impair its production, making it harder to achieve deep, restorative sleep

Lifestyle Medicine Strategies for Better Sleep (Even for Doctors!)

1. **Prioritize Sleep Consistency – Aim for 7+ hours whenever possible, even post-call. Maintain a regular wake-up time to reinforce circadian balance.**
2. **Manage Light Exposure – Bright light in the morning and limited screen exposure 1–2 hours before sleep help reset the circadian clock. Use blue light filters during night shifts.**
3. **Optimize Post-Shift Recovery – After a night shift, wear sunglasses on the way home to avoid light exposure that suppresses melatonin, and take a short nap (90 mins max) to reduce sleep debt during night shifts.**
4. **Create a Sleep-Friendly Environment – Blackout curtains, white noise machines, and cool room temperatures promote deeper sleep.**
5. **Nutrition & Caffeine Control – Avoid caffeine 6 hours before bed, and opt for light, proteinrich meals at night to prevent metabolic disruption.**
6. **Use Relaxation Techniques – Deep breathing, mindfulness, and progressive muscle relaxation reduce cortisol, improving sleep quality**

For doctors, quality sleep is not a luxury—it's essential for peak performance and long- term health.

4. Stress Management: Mitigating Burnout and Enhancing Resilience

Stress is an inevitable part of life, but for doctors, it becomes a daily reality—long hours, high patient loads, emotional exhaustion, and unpredictable emergencies take a toll on mental and physical wellbeing. While stress is unavoidable, managing it effectively is essential to prevent burnout, anxiety, and chronic health issues.

Understanding Stress & Its Impact

Stress triggers the release of cortisol and adrenaline, which in short bursts can enhance focus and performance. However, chronic stress leads to:

* Increased risk of hypertension, diabetes, and cardiovascular disease
* Weakened immunity and frequent illnesses
* Emotional exhaustion, irritability, and decision fatigue
* Poor sleep, weight gain and digestive issues

Lifestyle Medicine Strategies for Stress Management

1. Prioritize Physical Activity – Regular exercise (even 15–20 minutes a day) helps lower cortisol and improve mood. Activities like yoga, walking, or strength training work wonders.

2. Practice Mindfulness & Deep Breathing – Box breathing (4-4-4-4), meditation, or gratitude journaling can reset the nervous system and reduce stress perception.

3. Optimize Nutrition – Avoid excessive caffeine, sugar, and processed foods, which increase cortisol. Instead, focus on balanced meals with whole foods, omega-3s, and magnesium-rich foods (nuts, seeds, dark chocolate) to support relaxation.

4. Sleep Hygiene – 7+ hours of quality sleep is non-negotiable. Limiting screens before bed, using blackout curtains, and avoiding late caffeine intake can enhance deep sleep.

5. Set Boundaries & Delegate – Learning to say "no" to unnecessary obligations, delegating tasks, and taking regular breaks can prevent burnout.

6. Engage in Joyful Activities – Hobbies, music, spending time with loved ones, or even a short nature walk can act as instant stress relievers.

7. Seek peer support groups or professional therapy if stress becomes overwhelming

5. Avoidance of Risky Substances: Protecting Our Health

Limiting exposure to harmful substances helps in sustaining long-term health and productivity.
Healthcare professionals, under constant stress, may turn to alcohol, smoking, or excessive caffeine for temporary relief. However, these habits can lead to dependency, reduced immunity, and increased risk of chronic illness. Replacing unhealthy coping mechanisms with positive habits is crucial.

Practical Tips:

1. Identify triggers for substance use and replace them with positive habits (e.g., exercise, meditation).
2. Choose herbal teas or infused water instead of multiple cups of coffee.
3. Join professional wellness programs that promote addiction prevention.
4. Educate and encourage colleagues to maintain a substance-free lifestyle.

6. Social Connections: The Power of Relationships and Support

Strong positive relationships play a critical role in emotional resilience and overall well-being.
Despite working in a people-centric profession, many doctors experience social isolation due to long hours and demanding schedules. Social support helps reduce stress, prevent burnout, and enhance emotional health.

Practical Tips:

1. Schedule regular check-ins with loved ones, even through brief calls or messages.
2. Participate in team-building activities or doctor wellness groups.
3. Take vacations or weekend retreats to disconnect and recharge.
4. Practice active listening and empathy to strengthen professional relationships.

Here's a **Personal Readiness Assessment & Action Plan** for doctors to improve their health systematically:

Step 1: Personal Readiness Assessment

A. Self-Evaluation (Score Yourself 1-5 on Each Pillar)

1. Nutrition: Am I eating a balanced, whole-food, plant-predominant diet?
2. Physical Activity: Am I exercising at least 150 minutes/week?
3. Sleep: Am I getting 7-9 hours of restful sleep daily?
4. Stress Management: Do I have healthy coping strategies (meditation, hobbies, time management)?
5. Relationships & Social Support: Do I have positive, fulfilling relationships?
6. Substance Use & Risk Management: Do I avoid smoking, excessive alcohol, and unhealthy habits like excessive caffeine intake / excessive time spending in social media?

B. Health Metrics (Track & Assess Baseline)

1. BMI, waist circumference (Please note that Normal BMI for Asian people is 18.5 – 22.9 whereas for non-Asian it is 18.5 – 24.9) and (Waist circumference is considered normal if it is < 40 inches for men and < 35 inches for women)
2. Blood pressure, cholesterol, blood sugar
3. Mental health: Burnout/stress levels (Use validated tools like the Maslach Burnout Inventory)

Step 2: Develop a Personal Action Plan

A. Set SMART Goals (Specific, Measurable, Achievable, Relevant, Time-bound)

Example: "I will exercise 30 min/day, 5 days a week for the next 3 months.

B. Actionable Steps for Each Pillar

1. Nutrition: Meal prep, mindful eating, cut ultra-processed foods.

2. Physical Activity: Integrate movement into the workday (walk, stretch, take stairs).

3. Sleep: Limit screen time before bed, maintain a sleep schedule.

4. Stress Management: Daily 5-minute deep breathing, gratitude journaling.

5. Relationships: Schedule regular family/social time.

6. Risk Management: Reduce caffeine/alcohol, seek support if needed.

C. Regular Monitoring & Adjustments

1. Create a monitoring system like a daily log, check list or regular accountability meeting
Monthly self-check-ins
2. Use apps/trackers for sleep, diet, and exercise
3. Elicit help from a support team, including family, friends, colleagues, structured groups
online communities.
4. Seek professional help when needed.

D. Celebrate success and brainstorm ways to overcome barriers.

Conclusion

Adopting these six pillars of lifestyle medicine in our daily lives ensures that we maintain our health while serving our patients effectively. Prioritizing self-care not only enhances personal well-being but also enables us to set an example for those we treat. A healthier doctor means better patient outcomes—let's embrace lifestyle medicine and transform our approach to health and fitness.