A Monthly Bulletin of IMA Chennai Kodambakkam branch

IMACK

MAY 2026

ISSUE 5

Empowering Medical Professionals Through Excellence in Education

The 520th CME of IMA Chennai Kodambakkam Branch was held on 31st May 2026 at 2:00 PM at Aaditya Hotel, Vadapalani, Chennai.

The meeting was called to order by President Dr. Nirmala Ponnambalam and the Secretary Dr. Shahul Hameed smoothly conducted the meeting. For the first time, after the Tamil Thai Vazhthu and IMA prayers, the Flag Salute was performed in accordance with IMA protocol.

Around 75 members attended the CME, and one TNMC Credit Hour was awarded to the participating members.

LIFETIME ACHIEVEMENT AWARD

Dr. K. Raghuram, MBBS, MD, DM.

An alumnus of Madras Medical College. He completed his M.B.B.S. in 1967, M.D. in 1974, and was the first to receive a D.M. in Gastroenterology from the University of Madras. With over 30 years of service at Madras Medical College & Kilpauk Medical College from 1971 to 1997, he mentored generations as Tutor, Additional Professor, and Professor.

A Founder Member of SGEI and Founder President of TN-ISG, he has published research on Non-Wilsonian Kayser-Fleischer Ring, Autoimmune Hepatitis, and Chronic Budd-Chiari Syndrome. He is a recipient of the Lifetime Achievement Award from ISG, The Tamil Nadu Dr. M.G.R. Medical University, and Madras Medical College, along with the 'Professor of Professors' Award and 'Acharya of Gastroenterology' title.

A Life Member of the IMA, Chennai Kodambakkam branch. We, President and members of the Indian Medical Association Chennai Kodambakkam branch feel proud to honor a Doyen in Medical Field.

CME PROGRAMME

1. **IMA PRAYER AND FLAG SALUTATION - Dr. M.I.Shahul Hameed**

2. **MIS fusion**
   Dr Balaji Bashyam
   Consultant Endoscopic spine surgeon, MGM Healthcare

3. **Current Approach to UTI**
   Dr. Tejasvi K
   Consultant Infectious Disease, SIMS Vadapalani.

4. **Robotic Hernia Repair**
   Dr.Joyner Abraham
   Consultant, Kauvery hospital. Alwarpet

5. **My Professional Journey - Dr.Raghuram, Gastroenterologist**
   (Life Time Achievement Awardee)

6. **Cardiac Kidney Metabolism in today's world**
   Dr.NK.Ganesh Prasad
   SENIOR CONSULTANT NEPHROLOGIST, SRM PRIME

7. **Beyond Cure: Proton Therapy and the New Era of Cancer Survivorship**
   Dr Ashu Abhishek, Consultant Apollo Proton

8. **Swallowing Difficulty - Case Based Approach**
   Dr . Vishnu Abishek Raju, MD., DM , Consultant Apollo Hospital.

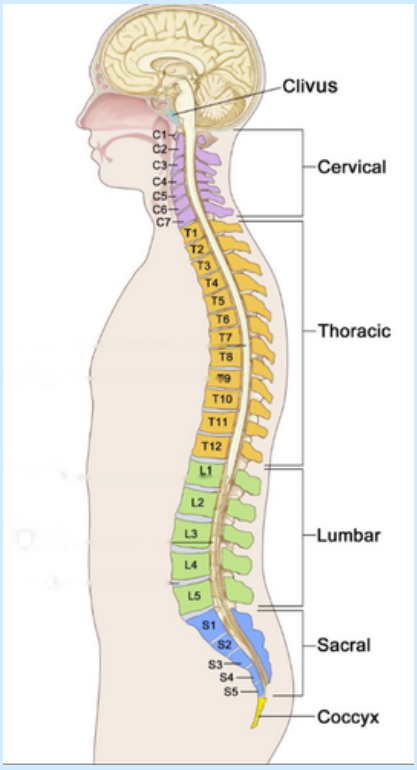
9. **Dr.Rukmani Sourirajan Endowment Oration**
   Topic : Management of Melasma
   Dr .U Zeenath Begum MBBS , MD

10. **Quiz - Dr M.I.Shahul Hameed**

AN OVERVIEW OF THE LECTURES PRESENTED IS GIVEN BELOW.

Minimally Invasive Spine Surgery

Dr Balaji Bashyam, Consultant Endoscopic spine surgeon



The human spine consists of both mobile segments that allow movement and immobile segments that provide rigid structural support.

Naturally mobile:

Cervical spine (neck): rotates, flexes, extends for head movement

Lumbar spine (lower back): bends forward/back/side-to-side

Naturally stable:

Thoracic spine (mid-back): rigid to protect organs, but still needs some rotation/extension.

Sacrum/coccyx (tailbone): fused for pelvic stability.

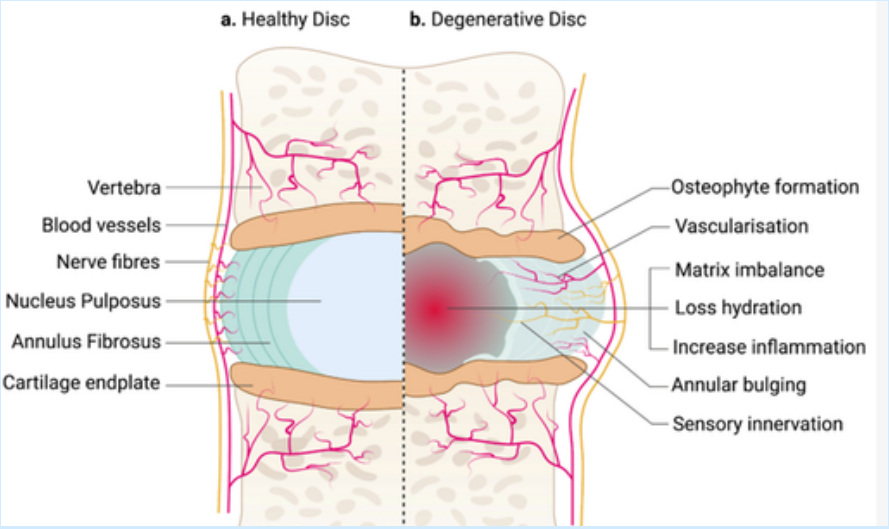
What's special about lumbar spine

Weight-Bearing Powerhouse: The lumbar vertebrae have thick, massive, block-like bodies designed to bear the stress of lifting, carrying, and standing against gravity.

Lordotic Curve: Unlike the C-shaped curve of an infant, the lumbar spine features a natural inward curvature (lordosis) that shifts the center of gravity over the pelvis, allowing for efficient, upright walking.

Mobility & Limits: It provides significant flexibility for bending forward, extending backward, and twisting. However, its facet joints are oriented to specifically block excessive twisting, protecting the lower spine from injury.

Nerve Highway: The L1-L5 vertebrae house and protect nerve roots that branch out to control your hips, legs, and bladder.



The Degenerative Cascade of Spine

1. Circumferential & Radial Tears
- Outer annulus fibers split, then radial tears form
- Nucleus pulposus leaks out
- Result: loss of disc height, poor load distribution

2. Cartilage Destruction
- Facet joints take on more body weight once disc fails
- Mechanical overload causes cartilage erosion, fibrillation, then loss

3. Synovial Reaction
- Cartilage debris enters synovial fluid
- Synovial membrane becomes inflamed and thickened = synovitis

4. Osteophyte Formation
- Body lays down new bone to stabilize the stressed joint
- Bone spurs form around disc margins and facet joints

5. Capsular Laxity
- Chronic inflammation and shifting stretch joint capsules and ligaments
- Ligaments lose tension → spinal segment becomes unstable

6. Subluxation
- Lost disc height + degenerated cartilage + lax capsules
- Vertebrae misalign → partial dislocation of articulating surfaces

GOALS OF SPINE SURGERY

1. Decompression
- Remove structures pinching nerves: bone spurs, thickened ligamentum flavum, herniated disc material
- Enlarges spinal canal to relieve pain, numbness, weakness

2. Stabilization with Fusion
- Stop painful micro-motions and prevent iatrogenic instability
- Permanently bond vertebrae using bone graft + metal instrumentation: screws and rods.

Approaches:

Posterior – back approach, Used for laminectomies, facet joint problems, pedicle screw placement.

Anterior – front approach, Removes vertebral body or discs for direct spinal cord decompression. Allows strong structural support with interbody cages.

Five Lumbar Fusion Surgical Approaches

ALIF - Anterior Lumbar Interbody Fusion
- Approach: Front of body, small abdominal incision
- Best for: L5-S1 level, avoids cutting back muscles, good for restoring disc height and correcting sagittal alignment

OLIF - Oblique Lumbar Interbody Fusion
- Approach: Front-side, anterolateral, retroperitoneal route, bypasses abdominal organs and psoas muscle
- Best for: Avoiding nerve injury risks of lateral or posterior approaches, effective for correcting deformities

XLIF - Extreme Lateral Interbody Fusion*
- Approach: Directly from the side, passes through or splits the psoas muscle
- Best for: Middle and lower lumbar spine, lateral disc herniation, avoids disturbing lower back muscles

TLIF - Transforaminal Lumbar Interbody Fusion

- Approach: From the back, angled to one side through the foramen where nerve roots exit
- Best for: Inserting fusion cage with minimal nerve retraction, commonly used for severe sciatica, spondylolisthesis, stenosis

PLIF - Posterior Lumbar Interbody Fusion*

- Approach: Directly from middle of the back, needs access to both sides of spinal canal
- Best for: Comprehensive bilateral nerve decompression with laminectomy plus insertion of two spacer cages

Open Spine Surgery vs Tubular Spine Surgery (MISS)

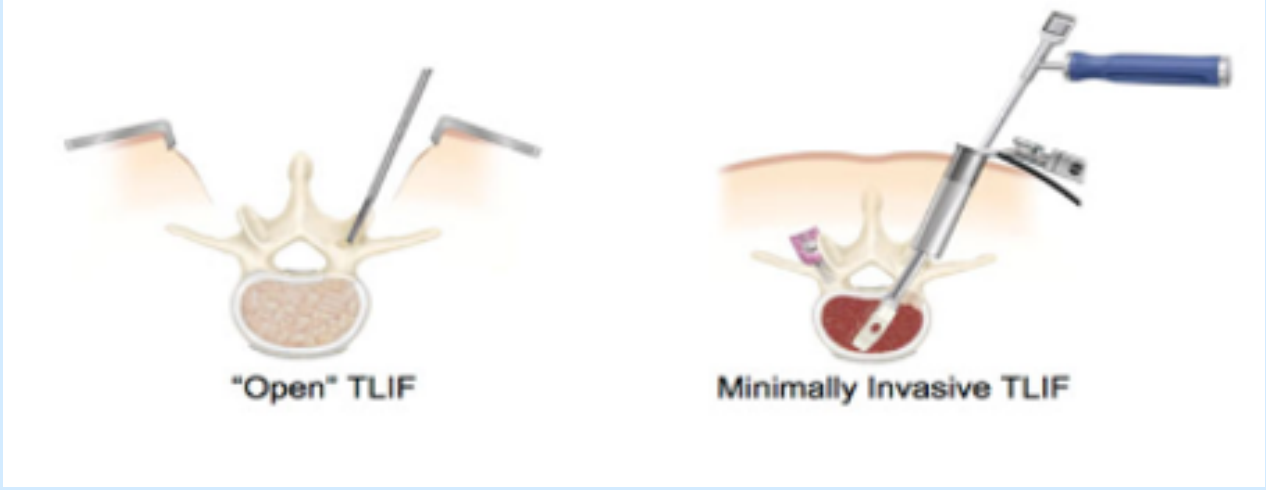
Incision Size
- Open: 5 to 6 inches, single large cut
- MISS: 1 to 2 inches, small keyhole cuts

Tissue Disruption
- Open: Muscles stripped and retracted away from bone
- MISS: Tubular retractors gently dilate muscles, no muscle cutting

Visualization
- Open: Direct, naked-eye view of surgical site
- MISS: High-definition microscopes or endoscopes passed through the tube

Blood Loss
- Open: Typically higher due to extensive muscle exposure
- MISS: Significantly less blood loss

Hospital Stay / Recovery
- Open: Several days to a week, longer recovery
- MISS: Often outpatient or overnight stay, quicker recovery



While Tubular MISS yields exceptional results for straightforward conditions like stenosis or single-level discectomies, Open Surgery is often mandatory for complex or unstable spine issues. The best approach depends entirely on your specific diagnosis and the surgeon's clinical evaluation.

Recent data—including prospective, non-randomized studies on single-level lumbar degenerative spondylolisthesis—indicate the following advantages for OTDF:

Functional Recovery: Yields better postoperative Oswestry Disability Index (ODI) scores, indicating superior functional improvement.

Pain & Analgesia: Patients report significantly reduced postoperative narcotic requirements.
Cosmesis: Results in a better cosmetic appearance due to a single mini-open incision.

Blood Loss: Associated with less intraoperative blood loss.
Hospital Stay: Patients experience shorter postoperative lengths of hospital stay.

Safety & Efficacy: Radiological fusion rates and stabilization outcomes remain highly comparable to conventional procedures.

Current Approach to UTI

Dr Tejasvi K MBBS,MD,DM

Urinary tract infection (UTI) is one of the most common infections encountered in clinical practice in both healthcare and community settings

The term 'UTI' encompasses a vast collection of disorders, ranging from simple cystitis or urethritis to pyelonephritis and renal abscesses, each entity warranting a different management strategy.

It is one of the major conditions at the community level treated empirically and regarded as a potential cause of emergence of AMR.

Risk factors for UTI

Female sex

Male with prostate pathology

Structural or functional anomalies of the urinary tract

Indwelling urinary catheters

Urinary tract calculi

Immunocompromised individuals

Elevated post-void residual urine

Neurological conditions affecting bladder function

Urinary flow obstruction

Recent urological interventions

New classifications of uUTI and cUTI

Old Classifications	New Classifications
Uncomplicated UTI: Acute cystitis in afebrile nonpregnant premenopausal women with no diabetes and no urologic abnormalities	**Uncomplicated UTI: Infection confined to the bladder** in afebrile women or men
Acute Pyelonephritis: Acute kidney infection in women otherwise meeting the definition of uncomplicated UTI above	**Complicated UTI: infection beyond the bladder** in women or men • Pyelonephritis • Febrile or bacteremic UTI • Catheter-associated (CAUTI) • Prostatitis* (*not covered by these guidelines)
Complicated UTI: All other UTIs	

Box 1: Complicated UTI classifications for guidelines purposes (intended to guide treatment not diagnosis)

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- Clinical presentation:
  - Complicated UTI is accompanied by symptoms which suggest an infection extending beyond the bladder, including:
    - Fever
    - Other signs or symptoms of systemic illness (including chills, rigors, or hemodynamic instability)
    - Flank pain
    - Costovertebral angle tenderness
  - Pyelonephritis is encompassed in complicated UTI.
  - UTI with systemic symptoms associated with transurethral, suprapubic, or intermittent catheterization is encompassed in complicated UTI.
- Populations:
  - Patients with complicated UTIs may have an indwelling urinary catheter, neurogenic bladder, urinary obstruction, or urinary retention as an underlying condition.
  - These guidelines are not intended to apply to bacterial prostatitis, epididymitis, or orchitis.

Box 2: Uncomplicated UTI classifications for guidelines purposes (intended to guide treatment, not diagnosis)

Box 2: Uncomplicated UTI classifications for guidelines purposes (intended to guide treatment, not diagnosis)

- Clinical presentation:
  - A clinical syndrome characterized by local bladder signs and symptoms such as dysuria, urgency, frequency, and suprapubic pain.
  - Uncomplicated UTI is presumed to be confined to the bladder and is defined by absence of signs or symptoms which suggest an infection extending beyond the bladder:
    - No fever, unless explained by a non-UTI cause
    - No other signs or symptoms of systemic illness (including chills, rigors, or unstable vital signs), unless explained by a non-UTI cause
    - No flank pain
    - No costovertebral angle tenderness
- Populations:
  - Uncomplicated UTI can occur in females or males, patients with underlying urologic abnormalities, patients with immunocompromise, and persons with diabetes. Recurrent UTI can be uncomplicated.
  - Patients with urinary catheters (including transurethral, suprapubic, and intermittent catheterization), stents, and percutaneous nephrostomy tubes generally do not have uncomplicated UTI.
  - These guidelines are not intended to apply to bacterial prostatitis, epididymitis, or orchitis.

Recommendations for the diagnostic evaluation of cystitis	Strength rating
Diagnose cystitis in women who have no other risk factors for systemic urinary tract infections (UTIs) based on: • a focused history of lower urinary tract symptoms (dysuria, frequency and urgency); • the absence of vaginal discharge or irritation.	Strong
Use urine dipstick testing for diagnosis of acute cystitis.	Weak

Urine cultures should be done in the following situations: • Suspected systemic UTI. • Symptoms that do not resolve or recur within four weeks after the completion of treatment. • Women who present with atypical symptoms. • Patients at high risk for infection with antimicrobial-resistant pathogens. • Pregnant women.	Strong

Treatment recommendations for cystitis

Antimicrobial therapy	
Prescribe fosfomycin trometamol, pivmecillinam, nitrofurantoin or nitroxoline as first-line treatment for cystitis in women.	Strong
Do not use aminopenicillins or fluoroquinolones to treat cystitis.	Strong

Urine analysis – key take aways

Urinalysis is not a stand-alone diagnostic test
Absence of pyuria makes UTI unlikely (high negative predictive value)
Studies estimate up to 60–80% of urinalyses are performed without symptoms, contributing to overdiagnosis and antibiotic use
Negative nitrites do not rule out UTI
Bacteriuria develops rapidly after catheterization and often represents colonization rather than infection. Do not treat bacteriuria in the absence of symptoms
In suspected CAUTI, obtain cultures after catheter replacement to improve diagnostic accuracy

Current Indian scenario

ICMR 2022 surveillance : CR has significantly risen from 2017, >95% of CR-E.coli harbor NDM
In India, ceftazidime avibactam plus aztreonam currently remains one of the last effective option against NDM producers
Indian NDM E.coli isolates shows unique mutation of PBP3 making above combination ineffective
Using this regimen empirically in sick patients is risky
Fosfomycin and Colistin based regimens should be considered as last resort, if no contraindication exist

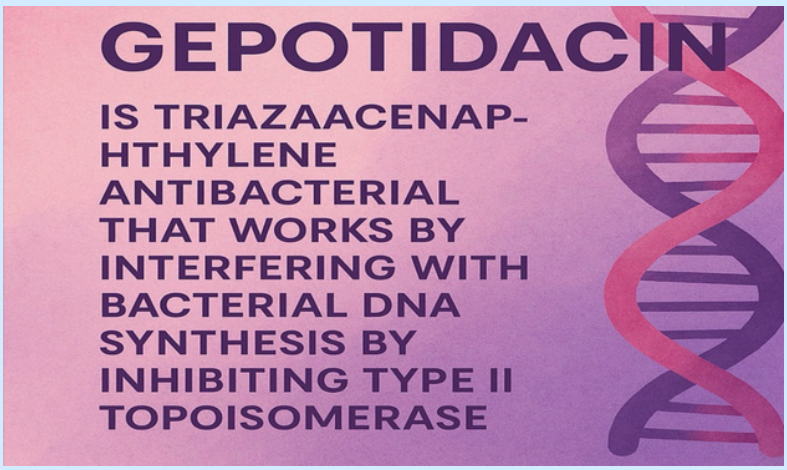
Newer antibiotic options

CAZ-AVI + Aztreonam	Aztreonam-Avibactam (ATM-AVI)
Two separate drugs	Single fixed-dose combination
Avibactam supplied through CAZ-AVI (4:1 ratio) 2.5g =CAZ 2gm + AVI 0.5gm	Optimized 3:1 Aztreonam:Avibactam formulation 2.67gm = aztreonam 2gm + avibactam 0.67gm
Requires simultaneous dual infusion	Single infusion
Potential PK mismatch between aztreonam and avibactam	Matched PK profiles
Lower avibactam exposure may occur in some patients	Higher and sustained avibactam exposure
Joint PK/PD target attainment ~80–85%	Joint PK/PD target attainment >90–99%

Press Release

Indian drug regulator grants marketing authorization to Wockhardt's breakthrough antibiotic, ZAYNICH® (Zidebactam/Cefepime), for treatment of complicated urinary tract infections including pyelonephritis with concurrent Gram-negative bacteremia

P-1209. Efficacy of β-lactam Enhancer Based Zidebactam-Cefepime Combination (WCK 5222) versus Meropenem in Adults with Complicated Urinary Tract Infection (cUTI) or Acute Pyelonephritis (AP) in a Global, Randomized, Double-blind, Phase 3 Trial



Take Home Messages

Treat the patient not the Urine report - Diagnose UTI clinically .

Pyuria or bacteriuria alone does not warrant treatment

Empiric therapy should reflect local resistance patterns and patient risk factors

Source control is as important as antibiotics

Recurrent UTI after antibiotics? Stop and reassess -Consider resistance, relapse, risk factors or alternate diagnosis

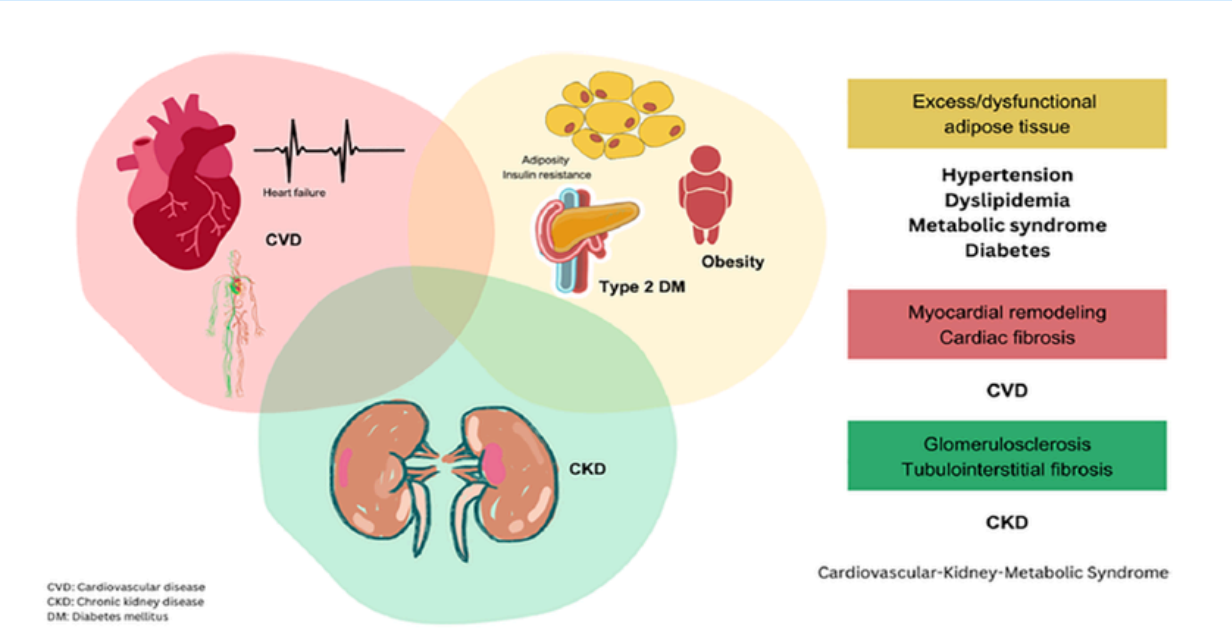
Cardiovascular-Kidney-Metabolic Syndrome

Dr. N.K.GANESH PRASAD, DNB, MNAMS

CKM SYNDROME: First conceptualized by the American Heart Association (AHA), it is a systemic disorder that integrates cardiovascular, renal, and metabolic health within a unified framework. Last 20 years, the disease burden attributable to metabolic disorders increased by 49.4%.

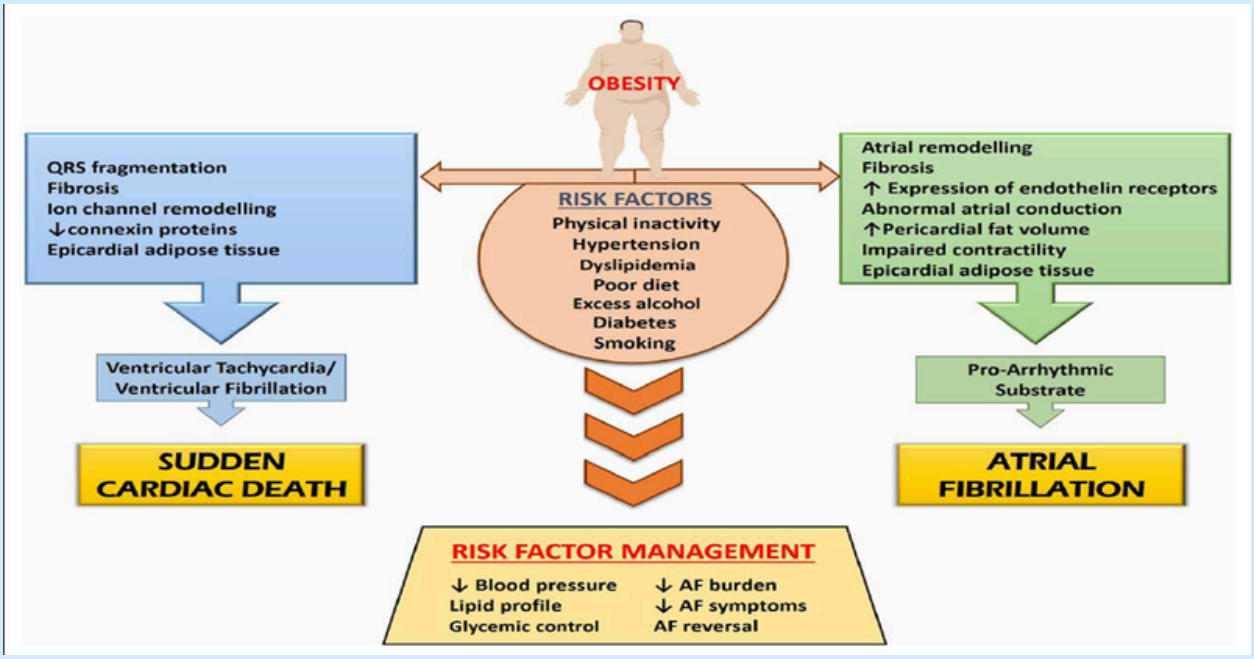
THE PREVALENCE OF ABDOMINAL OBESITY, DIABETES, AND DYSLIPIDEMIA are =~ 35.4%, 12.4%, and 38.4%, respectively.
India has 89.9 million diabetics -2026. Implication of rising central obesity and metabolic syndrome in young adults is expected to double CKM syndrome by 2045 unless aggressive metabolic control is achieved.

Asian Indians distinct susceptibility to develop T2D and other OBESITY-RELATED METABOLIC DISORDERS at a lower BMI.
The 'Asian Indian Phenotype', □□ high levels of abdominal fat, insulin resistance, and dyslipidaemia with low HDL cholesterol and high serum triglycerides even with normal BMI□□ a primary factor underlying this heightened risk.



Metabolic obesity: ≥2 components of metabolic syndrome:
(i) waist circumference ≥90 cm in males and ≥80 cm, in females,
(ii) fasting blood glucose (FBG) ≥100 mg/dl,
(iii) BP ≥130/85 mmHg or on anti-hypertensive medications,
(iv) serum triglyceride levels ≥150 mg/dl or
(v) HDL cholesterol <40 mg/dl for males and <50 mg/dl for females.

Four obesity subtypes :
Metabolically Healthy Non-Obese (MHNO): absence of metabolic obesity and BMI <25 kg/m2,
MHO: absence of metabolic obesity and BMI ≥25 kg/m2,
Metabolically Obese Non-Obese (MONO): presence of metabolic obesity and BMI <25 kg/m2,
Metabolically Obese Obese (MOO): presence of metabolic obesity and BMI ≥25 kg/m2.



Excess adipose tissue-> visceral adipose tissue, secretes proinflammatory adipokines and prooxidative products into the circulationà insulin resistance in the target tissues and exacerbates pathophysiological processes involved in atherosclerotic and ischemic damage to multiple organs.

Ectopic lipid accumulation in the kidney (fatty kidney) causes structural and functional changes in mesangial cells, podocytes, and proximal tubular cellsàà an adaptive increase in blood flow.

Pathophysiology — Insulin Resistance and Downstream Cardiovascular-Renal Effects

Step	Pathophysiology
1. Insulin Resistance	Impaired glucose uptake, hyperinsulinemia
2. Lipotoxicity	Free fatty acid accumulation damaging kidney and vessels
3. Endothelial Dysfunction	Reduced NO production, atherosclerosis onset
4. Pro-inflammatory State	IL-6, TNF-alpha activation
5. RAAS Overactivation	Fibrosis in heart and kidney

End Result: Increased albuminuria, progressive GFR decline, accelerated HF and ASCVD

Table 2. Risk-enhancing factors for CKM syndrome[a]

Chronic inflammatory conditions (e.g., psoriasis, RA, lupus, HIV/AIDS)
High-risk demographic groups (e.g., South Asian ancestry, lower socioeconomic status)
High burden of adverse SDOH
Mental health disorders (e.g., depression and anxiety)
Sleep disorders (e.g., obstructive sleep apnea)
Sex-specific risk enhancers (beyond gestational diabetes consideration in stage 1) History of premature menopause (age < 40 y) History of adverse pregnancy outcomes (e.g., hypertensive disorders of pregnancy, preterm birth, small for gestational age) Polycystic ovarian syndrome Erectile dysfunction
Elevated high-sensitivity C-reactive protein (≥2.0 mg/l, if measured)
Family history of kidney failure; family history of diabetes

AHA classifies CKM syndrome into Five stages.

• Stage 0: absence of CKM risk factors

•Stage1:excess/dysfunctional adiposity, including over weight /obesity, abdominal obesity, or dysfunctional adipose tissue (impaired glucose tolerance or prediabetes), without other metabolic risk factors or CKD.

• Stage 2: presence of metabolic risk factors, CKD or both

• Stage 3: subclinical CVD with metabolic risk factors or CKD

• Stage 4: clinical CVD with metabolic risk factors or CKD

o Stage 4a: without kidney failure

o Stage 4b: with kidney failure

Diagnosis & Biomarkers

Hyperhomocysteinemia;
KIM-1, kidney injury molecule-1;
MetS, metabolic syndrome;
METS-IR, metabolic insulin resistance score;
METS-VF, metabolism score for visceral fat;
sTNFR1/2, soluble tumor necrosis factor receptors;

Biomarker	Predictive Power
HbA1c	Glycemic control; correlated with CKD risk
Apolipoprotein B (ApoB)	Stronger predictor of ASCVD than LDL-C
Albuminuria (UACR)	Earliest renal and cardiovascular risk marker

Lifestyle Modifications – Diet, Exercise, Weight Management

Dietary Approaches

- **Mediterranean and DASH diets** are recommended to reduce cardiovascular and renal risks.
- **Key dietary recommendations:**
  - **Reduce sodium (<2.3g/day)** to manage blood pressure.
  - **Increase fiber intake (25-30g/day)** to improve lipid metabolism.
  - **Limit saturated fats and refined sugars** to reduce insulin resistance.

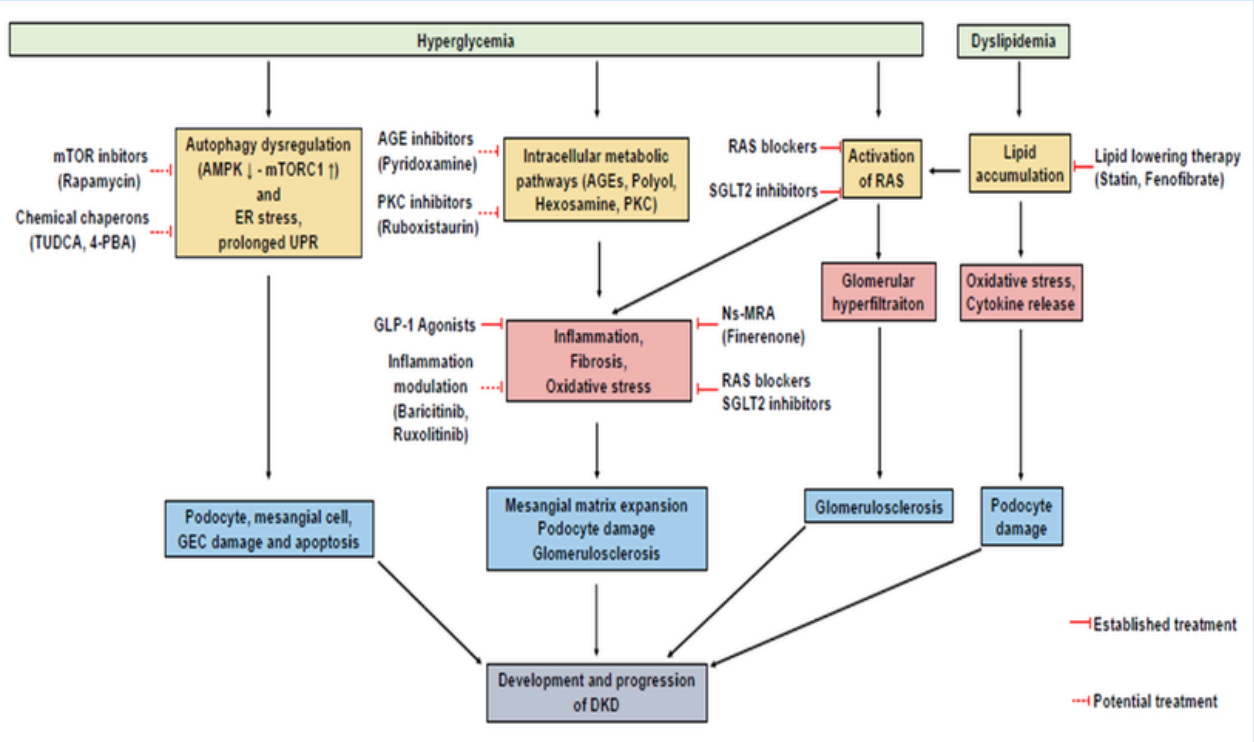
Exercise Recommendations

- **At least 150 minutes of moderate-intensity exercise per week** to improve insulin sensitivity and cardiovascular health.
- Resistance training **twice a week** for metabolic benefits.

Weight Management

- **Target weight loss of ≥5% for CKM patients with obesity** to improve metabolic and cardiovascular outcomes.
- **Bariatric surgery considered for BMI ≥40 kg/m² or ≥35 kg/m² with comorbidities.**

Therapy	Key Benefits
SGLT2 inhibitors	↓ CV death, ↓ HF hospitalization, ↓ CKD progression (EMPA-KIDNEY, DAPA-CKD)
GLP-1 receptor agonists	↓ ASCVD events, ↓ weight, moderate renal protection (LEADER, REWIND)
MRAs (Finerenone)	↓ Fibrosis and inflammation, protects kidneys and heart without severe hyperkalemia



Early metabolic dysfunction drives CKD and CVD

Albuminuria and insulin resistance are crucial early markers

Combination therapy (SGLT2i + GLP-1RA + Finerenone) targets multiple CKM pathways

The potential of nsMRA (finerenone) as an anti-obesity drug is not well established but known mechanisms.
Does not directly affect weight loss, fat reduction, appetite regulation or energy consumption but may indirectly support weight management through metabolic benefits.

Mineralocorticoid receptors in adipose tissue, adipogenesis, inflammation and metabolic abnormalities.

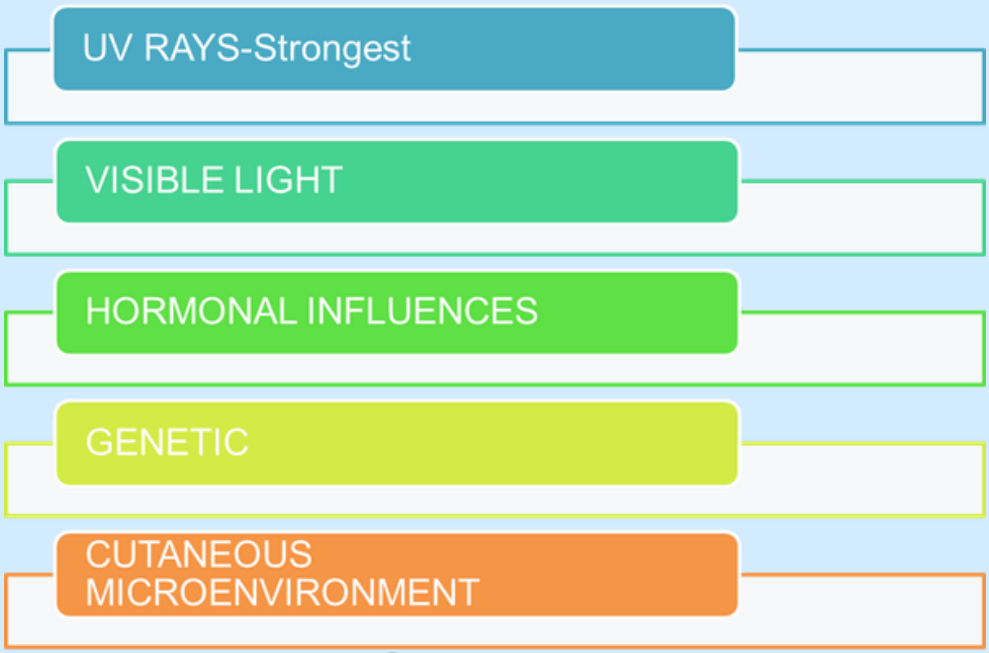
MANAGEMENT OF MELASMA

Dr U Zeenath Begum MD

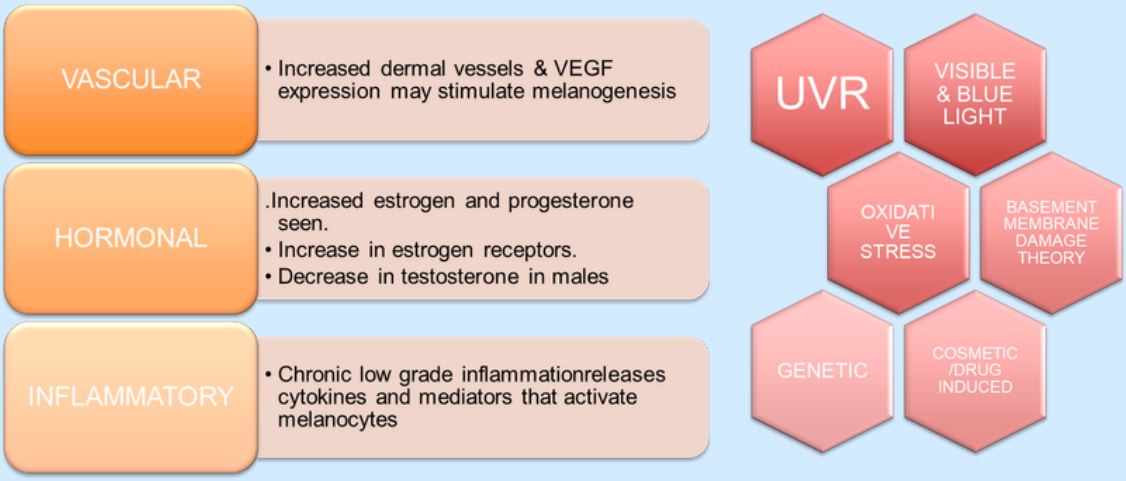
Melasma is an acquired hyperpigmentary disorder characterized by symmetric , irregularly bordered brown to gray macules to patches that predominantly involve sun exposed facial skin .
The most common locations are the centrofacial,malar and mandibular areas.
Clinical improvement is frequently transient in the absence of sustained photoprotection and maintenance therapy.

Epidemiology of melasma.
Melasma is much more common in women during their reproductive years.
It is much more common in darker skin types (skin types IV to VI)
The disease prevalence among Asians is about 40% in females and about 20% in males.
It is rarely reported before puberty.
Extra-facial melasma is more prevalent in postmenopausal women.
M/C in Females(90%) > Males(10%)
Exacerbates during Summer and improves in Winter.

ETIOLOGY



THEORIES OF MELASMA



Classification of melasma based on clinical pattern

1.Centrofacial pattern (66%)

It is the most common pattern, it affects the forehead cheeks , upperlip, nose and chin. It spares Philtrum.

2.Malar pattern (20%)

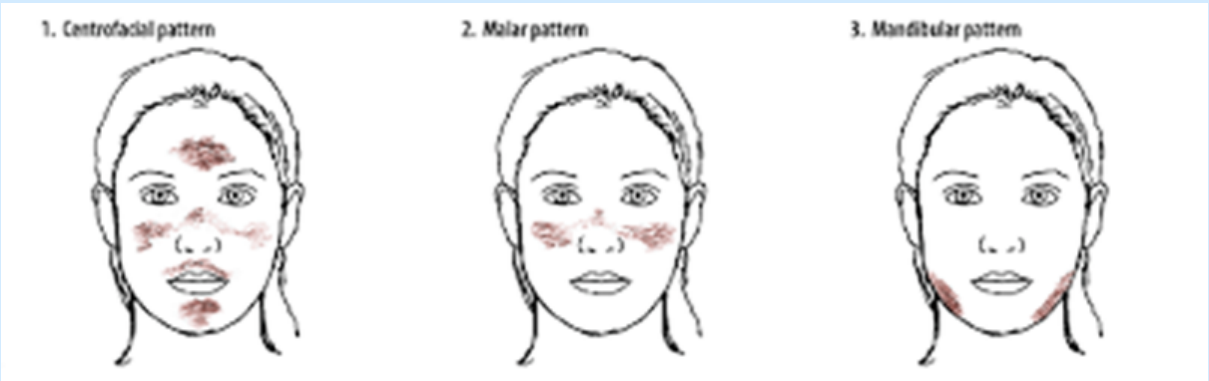
Affects the cheeks and nose. In men, the malar pattern is more common than the centrofacial and mandibular patterns.

3.Mandibular pattern (14%)

The ramus of the mandible involved in this pattern.

4.Extra facial melasma

It commonly involves the extensor surface of arms, forearms, neckline, back of upper third of the trunk and sides of the neck.



Classification of melasma based on location of melanin

1.Epidermal - Well defined border, brownish in colour, has geographic pattern and responds well to treatment.

2.Dermal - M/C type, Ill defined, light brown to bluish in colour and poor response to treatment.

3.Mixed - Combination of both.

Classification based on duration

1.Transient: Persists less than 1 year of removal of risk factors(stopping the OCP)

2.Persistent: Persists more than 1 year of removal of risk factors(stopping the OCP)

What is MASI score?

Area measurement in 4 areas

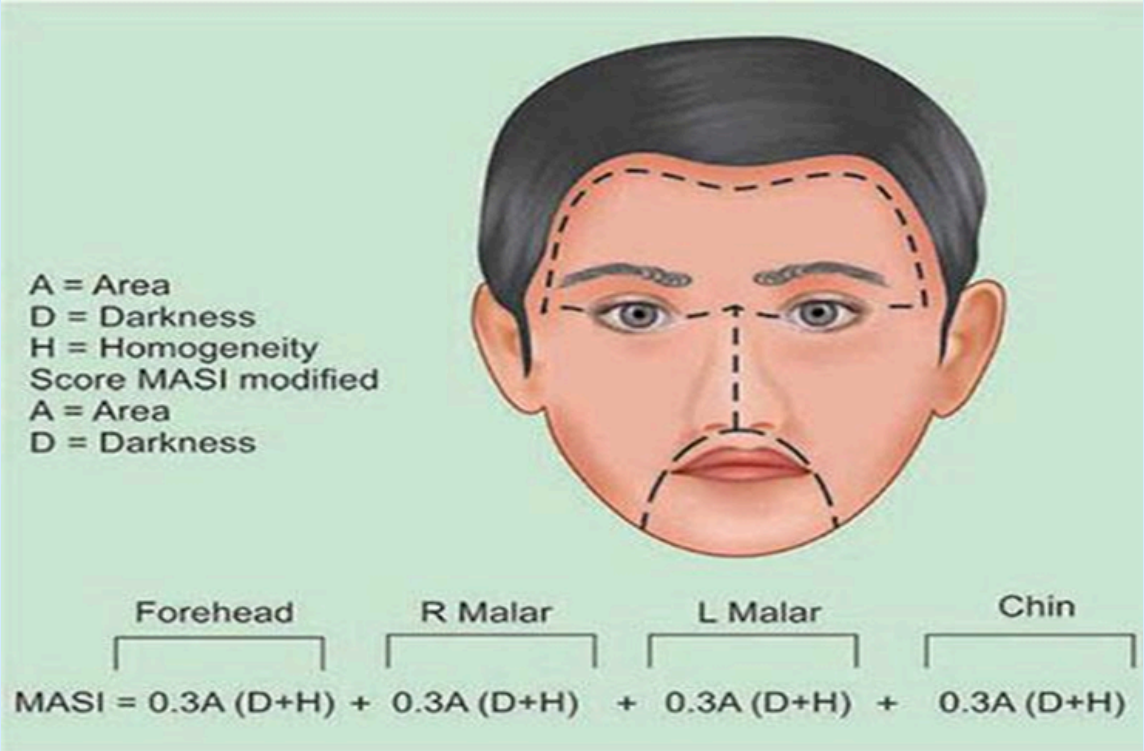
Forehead(F) which accounts for 30% of the score

Right malar region (RMR) which account for 30% of the score

Left malar region (LMR) which account for 30% of the score

Chin (M) which accounts for 10% of the score

The range of score is 1 to 48



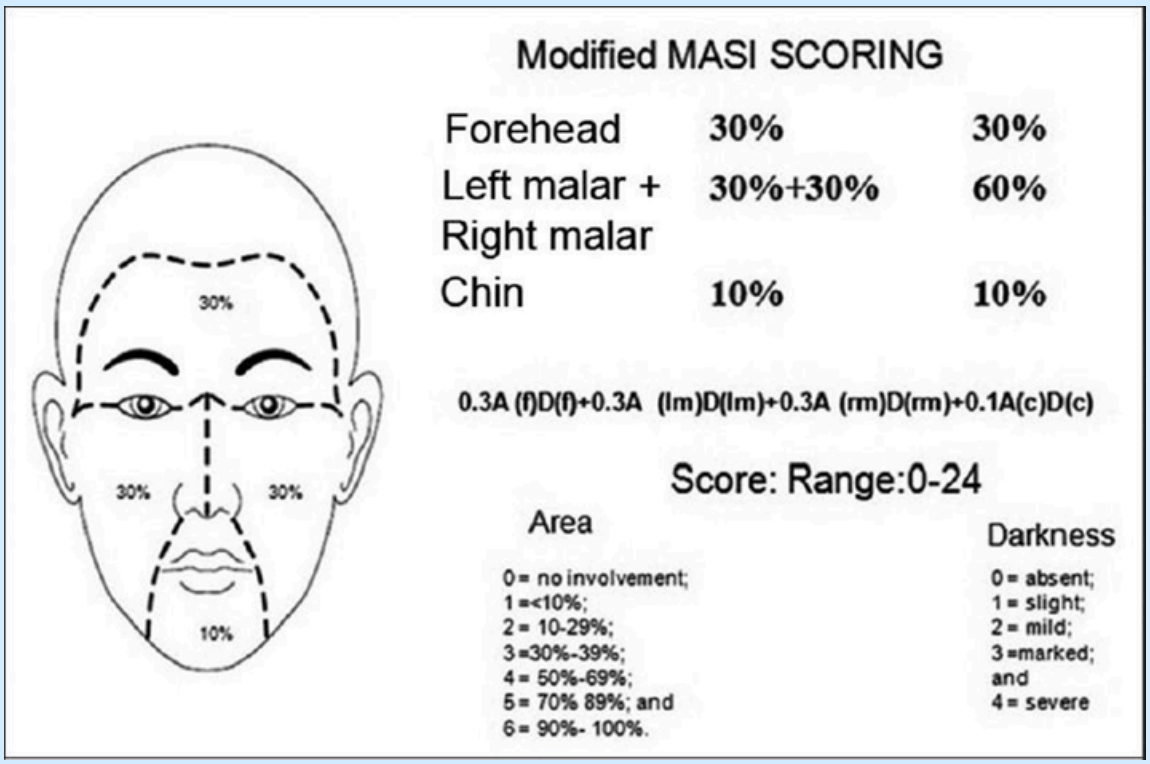
What is Modified MASI score

Modified MASI scoring system was introduced by Pandya et al. For reliable measurement of melasma severity.

In this scoring system homogeneity of pigmentation was eliminated and range of score were from O to 24.

The modified MASI score appeared easy to perform.

Modified MASI score =0.3A(F) D(F) + 0.3 A(LMR) D(LMR) + 0.3 A(RMR) D(RMR) + 0.1 A(C) D(C)



What are the treatment modalities?

Goals of therapy?

1.To decrease pigmentation.

2.Improve cosmetic appearance.

3.Prevent recurrence.

Principles

1.Sun Protection.

2.Inhibits the activity of melanocytes.

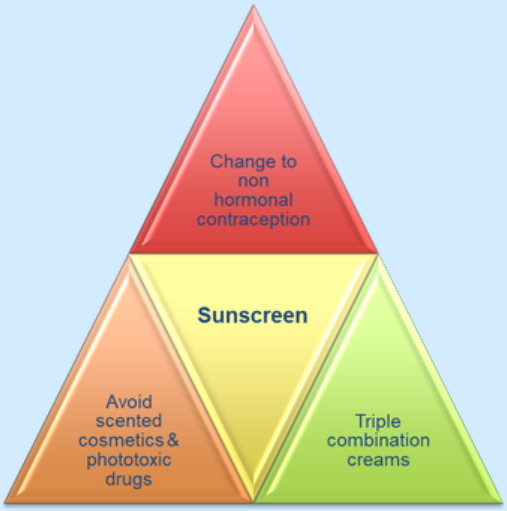
3.Inhibits the melanin synthesis.

4.Disruption of Melanin.

Photoprotection :

•Photoprotective measures like the avoidance of direct sun-exposure and the regular use of a broad-spectrum sunscreen are always advised in management of melasma.

FIRST LINE



TOPICALS

Azelaic acid	Kojic acid	Glycolic acid
Retinoids	Mild steroids	Hydrquinone(me quinone)
Ascorbic acid	Niacinamide	Tranexemic acid

SYSTEMIC

TRANEXEMIC ACID	GLUTATHIONE
VITAMIN C	RETINOIDS

What are the chemical peels used in melasma ?
Alpha hydroxy peel
Glycolic acid (GA) is peel the most commonly used alpha hydroxy peel. It is generally used as a 30-70% of GA solution.

Trichloroacetic acid peel (TCA)
The gold standard chemical peel is TCA 15-20%.

Beta hydroxy peels: Salicylic acid, a beta-hydroxy acid which is mainly used for acne and pigmentary disorders like melasma.
It is used in concentration from 10%- 30%.
Jessner's solution: It is a combination of resorcinol 14g / salicylic acid 14g and lactic acid 14cc in ethanol 95% has been extensively utilised as a superficial peeling agent for all skin types

Alpha keto peels : Pyruvic acid is used in melasma be cause of its diverse keratolytic,antimicrobial and sebostatic properties as well as the ability to stimulate the formation of new collagen and elastic fibres.
Laser therapy in melasma
Intense pulsed light (IPL) : IPL laser is mainly used in epidermal type of melasma especially with Fitzpatrick skin type I and Ill.
Q-switched lasers (QS): Short nanosecond pulses of energy to the skin deliverd from QS lasers is aimed to selectively target melanosomes with thermal diffusion. QS lasers have been used in melasma at various wavelengths, vinclucling QS Nd:YAG (1064 nm), QS Ruby laser (694 nm) and the QS Alexandrite laser 755nm
Ablative fractionated resurfacing lasers

CO2 lasers and Erbium: YAG lasers are used for the treatment of patients with melasma.
PICO laser
Pulsed dye laser (PDL): The use of PDL for the treatment of melasma is based on the theory that skin vascularisation plays an important role in the pathogenesis of melasma. Melanocytes express VEGF receptors 1 and 2 which are involved in the pigmentation process.

AI IN PATIENT CARE: A BOON OR A BANE

Introduction

Change is the only constant is a philosophical phrase dated 500 BC, which holds good for any technological advancement of human race. Every generation of medical practitioners has witnessed transformation, from the invention of the stethoscope to the development of minimally invasive and robotic surgeries. Today, Artificial Intelligence stands as the latest and perhaps most powerful innovation shaping the future of healthcare.

The debate, however, continues: Is AI a boon or a bane for medical practitioners?
AI or artificial intelligence is a technology that enables computers and machines tosimulate human intelligence such as learning, reasoning, problem solving, understanding language and recognising images. Artificial intelligence allows machines to think, learn and make decisions in ways that mimic human brain.

AI systems basically use the following
▫ Machinelearning- Data driven
▫ Deeplearning- Similar to neural network of human brain.
▫ Natural language processing- understanding and generating human language eg virtual assistants like Siri
▫ Computervision- Interpretation of images and videos.

In today's world, AI has insinuated into the depth of human behaviours. It understands the pattern of a particular user and recommends and suggests options in products, people, movies, entertainment . As a virtual shadow, it tracks ones physical activity, sleep, movement with geographical location etc .

Gone are the days when a medical practitioner is required to access a physical library for textbooks and medical journals to refer and plan a solution for tricky medical condition .

With any technology like robotic surgery, the device is as smart as the person using it. AI works on the basis of loads of data . Anywhere there is a lot of data available with normal and abnormal values or patterns defined and standardised, AI comes handy (Example- analysis of x-rays, CT scans, ECG, MRI, LAB patterns, etc) The leading company in the AI powered diagonostis are Zebra medical mission, Aidoc for AI powered radiology solution and PathAI for AI assisted cancer diagonostis. For Virtual nursing assistance, Sense.ly and Buoyhealth help healthcare workers in AI powered symptom checkers and triage tools. Tempus Labs and Foundation Medicine for AI powered Optimisation, Remote tele surgery enabled by AI and Robotics help Surgeons think the unthinkable. Systems like cybersite AI and EyeArt can analyze images in diabetic Retinopathy and provide result in minutes which is crucial in low resource settings.

AI can be a gap between an expert and a patient . Alerts for drug interaction, allergies, dosage of medications, electronic medical records, research methodology are being used increasingly with AI . Wearable sensors and device analytics allows continuous monitoring, giving real time data. There has been instances of cardiac patients with monitors reporting to the emergency using the alert given by the wearables and getting timely intervention. Now the clinician is powered with knowledge at the touch of a button .For academic and teaching purposes , AI has been useful to assisting in PowerPoint presentations .At the recently conducted AI summit in India, It has been emphasised that AI has become a core utility and it empowers the doctors rather than replace them.
When it comes to the cost of AI in Health Care, it depends on the task that we use .The cost for small scale AI tools like AI chat bots aimed at basic functions like helping patients or reducing Admin workload is affordable for any clinician .

For diagnostic support tools like reviewing x-rays or more advanced systems, the AI system has to be integrated with Hospital system, and it needs testing and training, and can be costly for smaller Nursing homes .

For advanced AI platforms wherein the electronic records and Predictive analysis integrated in Hospital system can be very expensive running to crores which can be adopted by large corporate hospitals. The medical validation and regular regulatory certification like CDSCO approval might become too expensive .

Once the AI health tool is installed, the recurring cost of staff training, maintaining and updating data, security and regulatory compliance, cloud computing and infrastructure per year are the recurring expenses to be borne by the user. The cost versus benefit ratio is to be calculated for the individual requirement and scenario. Though AI in Patient care sounds very beneficial. It has its own drawbacks. Data privacy Is the main factor as the very trust of a doctor- Patient relationship stems from the fact that the health information of the patient is confidential. Any flaws or error in the analysis, risk prediction or diagnosis is unregularised with no accountability. As the present generation seeks medical information and specialists in the web, doctors with good search engine optimisation gets more leads. AI can make wrong predictions or diagnosis which may affect patient safety.

With the recent experience of one AI duplicating another AI as in the case of Anthropic, if systems are hacked or misused, sensitive medical information can be exposed. The legal and ethical consideration is that If an Ai makes a mistake , there is no clarity whether the doctor , hospital or the software company is responsible. Stronger laws are still on its developmental stage in many countries.

If Ai is trained mostly on data from certain populations, it might not be accurate in the user set of patients.which leads to regional bias.

The human touch ,tender loving care, the commonsensical analysis of the patientsymptoms ,absorbing the patient's body language, observing the subtle signs in the Patient of a disease,the clinical intuition gained by years of practice cannot match the enormous memory and learning ability of AI . Nevertheless the AI is the future which is here to stay, and it's upon the clinicians to adapt, adopt, update and become the master rather than slave to the technology. The near future of AI resembles a signal translator translating pattern from datasets.

In the next five to ten years,there will be a significant progress in the development of powerfull algorithms that are efficient enabling to became co-innovators to develop novel AI systems for precision therapeutics.In the long term, AI augmente healthcare will shift from traditional medicine to a preventive, personalised, data drivendisease management model.

The medical experts and technological experts partnering for the identified goals and developing an Ai system which is relevant and cost effective has already started.

In conclusion, Ai in healthcare still is a boon as it helps the clinician to accomplish various tasks in a short time while still embracing the human touch in patient care.

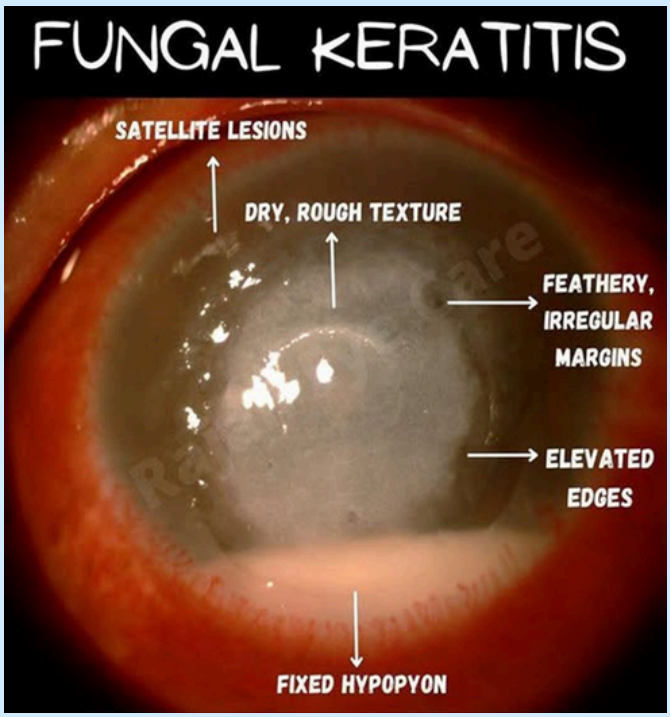
By
DR.A.SUDHA
Winner

BY Dr M.I.Shahul Hameed

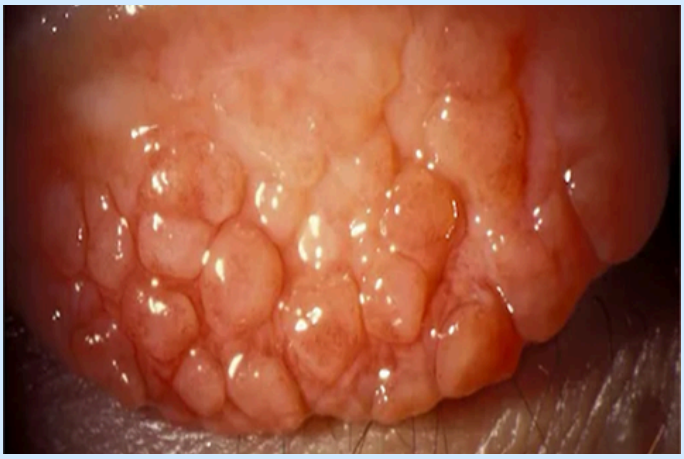
QUESTION NO.1
Which layer is accountable for preserving the moisture and clarity of the cornea?

The human cornea is comprised of six different cell layers: Epithelium, Bowman's Layer, Stroma, Dua's Layer, Descemet's Membrane and Endothelium
The corneal endothelium is primarily responsible for maintaining the hydration and transparency of the cornea

QUESTION NO.2
What is the distinguishing characteristic of a fungal Corneal ulcer?
Satellite lesion
Satellite lesions in fungal keratitis are small, discrete, secondary stromal infiltrates located around the periphery of a primary corneal ulcer.
They are a hallmark clinical sign indicating active spread of filamentous fungal infection through the corneal stroma.



QUESTION 3



A contact lens user presents with the following clinical picture.
He has had watering, redness, and foreign body sensation in the eye for the past 2 months.
What is the most probable diagnosis?

Giant papillary conjunctivitis

Giant Papillary Conjunctivitis (GPC), mechanically-induced papillary conjunctivitis, is a localized allergic response to a physically rough or deposited surface (contact lens, prosthesis, nylon suture, and scleral buckle).

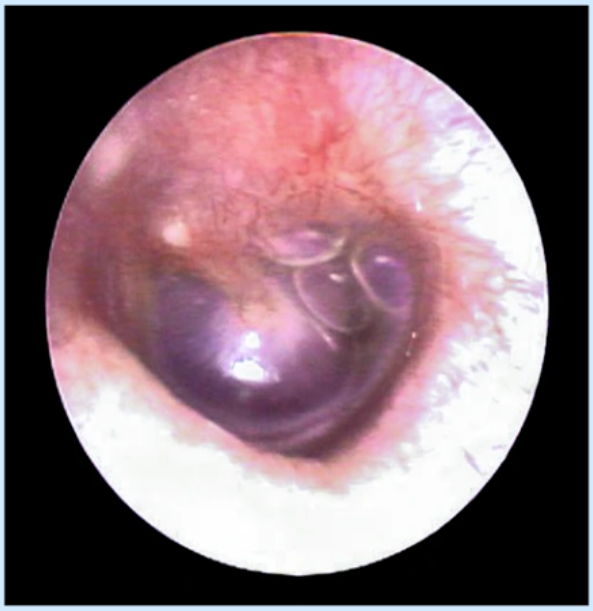
QUESTION NO 4

Stimulation of the following causes cough when the external auditory canal is scratched?

ARNOLD'S NERVE

When scratching the external auditory canal, the cough reflex can be triggered due to the stimulation of the auricular branch of the vagus nerve (also known as the Arnold's nerve or Alderman's nerve), which supplies sensory innervation to the external acoustic canal.

QUESTION NO.5

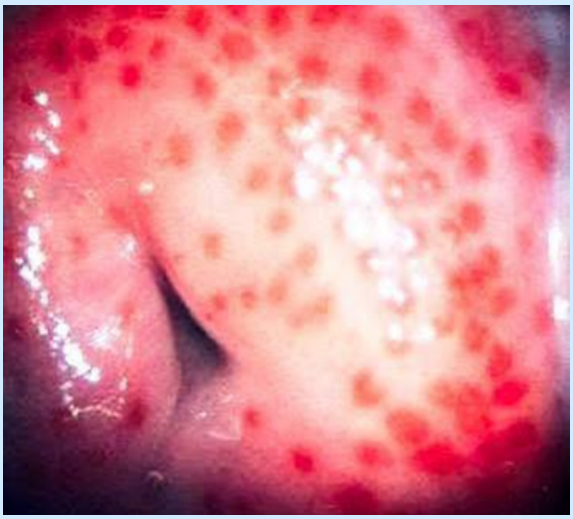


A 5-year-old child presents with reduced hearing for the past 2-3 months.

The otoscopy finding is given on the right.
What is the most likely diagnosis?

Serous Otitis Media (SOM) / Ottis media with effusion (OME)

This is often a common condition in children where fluid builds up within the middle ear causing hearing loss, discomfort, and sometimes balance issues.
Often from Eustachian tube dysfunction following a cold, allergy, or upper respiratory infection



QUESTION NO.6

A patient came to the gynaecology OPD with complaints of foul-smelling, frothy vaginal discharge and intense itching.

On examination, the cervix and vagina were spotted and had the appearance of a strawberry.

A "strawberry cervix" is a clinical finding where the cervix appears red, inflamed, and covered in tiny, punctate hemorrhagic spots (red dots) that resemble the surface of a strawberry.

It is most characteristically seen in trichomoniasis, a common sexually transmitted infection caused by the protozoan parasite Trichomonas vaginalis.

QUESTION NO 7

Identify the contraceptive shown in the given image?

Female condom:
Female condoms are soft, loose-fitting pouches with flexible rings at each end.
One ring is inserted into the vagina to hold the condom in place, while the other ring remains outside to cover the area around the vaginal opening.

QUESTION NO.8
Which spirometry finding best distinguishes between obstructive and restrictive lung diseases?
FEV1/FVC ratio
Forced expiratory volume in 1s (FEV1)
Forced vital capacity (FVC)

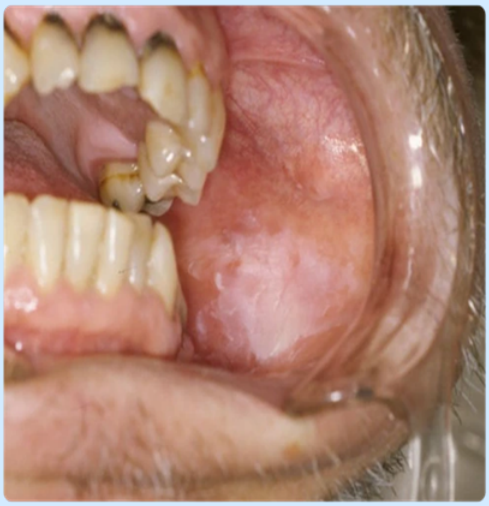
In obstructive lung diseases (like asthma and COPD), airflow is limited, causing the ratio to drop to (<0.70\).
(difficulty exhaling air)
In restrictive lung diseases (like Idiopathic Pulmonary Fibrosis), the ratio is normal or increased (>0.70) because both FEV1 and FVC decrease proportionally.
(difficulty inhaling air)

QUESTION NO.9
A patient with wheezing and shortness of breath produces sputum. Which microscopic finding is highly characteristic of bronchial asthma?

Curschmann spirals and Charcot-Leyden crystals.

Curschmann spirals are casts of mucus from small bronchioles, while Charcot-Leyden crystals are formed from the breakdown of eosinophils, making them hallmarks of allergic asthma.

QUESTION NO.10



A 50-year-old patient comes to the OPD concerned about a newly developed whitish discoloration in his mouth.

On examination, a white plaque-like lesion was found in his buccal mucosa, which could not be rubbed off. What is the most likely diagnosis?

Leukoplakia

Leukoplakia is a condition that causes thick, white or grayish patches to form inside the mouth (on the gums, cheeks, or tongue).
While typically painless, these patches cannot be scraped or wiped away.
It is considered a potentially precancerous (premalignant) disorder

"Did You Know"

Vessel length: An adult's blood vessels could circle Earth's equator four times if laid end-to-end.

Cell factory: Your body produces roughly 25 million new cells every single second.

Pumping power: The heart pumps roughly 2,000 gallons of blood throughout the body daily.

Mass production: Your bone marrow generates 2 million oxygen-carrying red blood cells every second.

IMA Chennai Kodambakkam branch Photo Gallery

IMA Chennai Kodambakkam branch Photo Gallery

Dr.A.Bhavani

Many doctors are not physically tired anymore.
They are mentally under-stimulated.
That sounds strange because medicine is exhausting. Clinics are overflowing. Hospitals are chaotic. Phones never stop ringing. Patients keep coming.
Yet beneath all that busyness, many clinicians quietly experience something difficult to explain:
a strange emotional flattening.

The early years of medicine were different.
There was excitement in diagnosis. Adrenaline in emergencies.
Meaning in helping people. Curiosity in learning.
A sense of becoming someone important — not socially, but internally.

Then slowly, without noticing, medicine can become mechanical.
The same diabetes reviews. The same URTIs. The same discharge summaries. The same mental health plans. The same forms.
The same complaints. The same medico-legal anxieties.
The same ten-minute consultations repeated thousands of times.

The human brain is not nourished merely by activity.
It is nourished by: novelty, challenge, creativity, growth, mastery, purpose, and emotional meaning.

A doctor can see forty patients a day and still feel psychologically starved.
That is why some clinicians become exhausted not because the work is "too hard," but because it has become too repetitive for the level of intelligence, curiosity, and emotional depth they once possessed.

Many don't recognise this state. So they compensate unconsciously. Some start working more and more shifts.
Some scroll endlessly after work because silence feels unbearable. Some become obsessed with gadgets, cars, investments, or social media validation. Some fantasise about quitting medicine entirely. Some become emotionally detached from patients. Some become cynical. Some quietly lose joy.

Society misunderstands doctors. People think the biggest danger to a doctor is stress. Often the bigger danger is becoming emotionally numb while continuing to function efficiently.

The clinic still runs. Bills are paid. The mortgage continues.
Children go to good schools. From outside, life appears successful. But internally, something important slowly goes offline. The tragedy is that many highly intelligent doctors spend decades convincing society they are successful while never asking themselves whether they still feel alive.

This is why many experienced clinicians suddenly rediscover energy when they: teach students, mentor juniors, develop subspecialty interests, learn photography, write, paint, do research, travel, explore philosophy, build procedural skills, create businesses, or simply spend more time having meaningful conversations instead of rushing through patients like an assembly line. The mind wakes up again when it encounters meaning.

Medicine was never supposed to reduce human beings into billing machines.
A doctor is not merely a provider number attached to a Medicare claim.
A doctor is also: a thinker, a teacher, an observer of humanity,
a lifelong student, and often, a person with unusually deep emotional and intellectual capacities.
But if life becomes only: income, mortgage, tax, school fees, and throughput medicine, even a brilliant mind can slowly become dull from repetition.

The answer is not always "earn more." Sometimes the answer is: create more meaning. Not every doctor needs to leave medicine. Most don't. But many need to rebuild a version of medicine that allows curiosity, creativity, mastery, and humanity to survive inside it.Because eventually, every clinician reaches a point where one question becomes unavoidable:
"Am I truly living this profession...
or merely enduring it efficiently?"

"Did You Know"

Pain paradox: The brain processes pain signals for the whole body but contains no pain receptors itself.

Speedy nerves: Information travels along your nerves to the brain at speeds reaching 400 km/h (249 mph).

Scent memory: The human nose can identify and remember roughly 50,000 unique scents.

Eye consistency: Your nose and ears grow forever, but your eyes remain nearly the same size from birth.

Acid power: Stomach acid is strong enough to dissolve metal razor blades.

Self-protection: To avoid digesting itself, your stomach completely replaces its inner lining every 3 to 4 days.

Liver superpower: The liver is the only internal human organ capable of complete natural regeneration.

MEMBER'S DIRECTORY

This is to inform our esteemed Members that the Executive Committee of IMA Chennai Kodambakkam branch has decided to collect member details using the Google Form link provided below. Please Copy the link and paste it in google search.

https://docs.google.com/forms/d/e/1FAIpQLSfJ9lJ_5u_v6Yfc7AfnUBAGOzd9vKNi74-wtmF3md457qla-w/viewform?usp=publish-editor

You are requested to fill out the form and submit it at your earliest convenience. The compiled data will be used to create a directory of IMA Chennai Kodambakkam branch members.

Drawing/ Painting Competition
Exclusive for Doctors

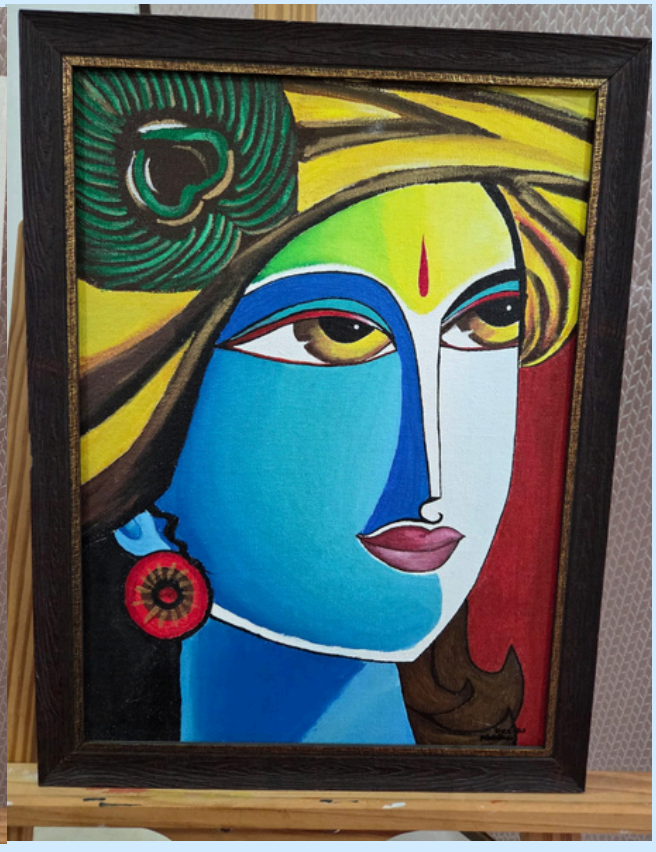
On behalf of the Executive Committee, IMA Chennai Kodambakkam Branch , we extend our heartfelt congratulations to the winners of our Painting Competition:

1st Prize – Dr. S. Indra
2nd Prize – Dr. Madhumitha

Your talent, creativity, and dedication have truly stood out. Thank you for bringing colour and inspiration to our branch. Wishing you many more artistic milestones ahead!

DR.S.INDRA

DR.MADHUMITHA



FSS1 & FSS 11

IMATNSB is running two schemes Family Security Scheme I & Family Security Scheme II with an objective of "To provide immediate Financial aid to the family in case of death of a FSS member".

FSS 1 & FSS 11
Should be a life member of IMA TNSB
Age limit upto 55 years.
Joining Non-Refundable amount is as follows,

Below 30 years	**- 3000/-**	**31-40 years**	**- 10000/-**
41-45 years	**- 30000/-**	**46-50 years**	**- 50000/-**
51-55 years	**- 55000/-**		

All the FSS I member will contribute Rs.200 each for the death of any FSS I member Every year 60 death was estimated (200*90=18,000) and the amount should be paid in advance.

Advance amount can be paid without penalty from January to March, then 200 will be added to advance amount for every three months. Currently the death benefit for the FSS I members is 18 lakhs.

All the FSS II members will contribute Rs. 300 each for the death of any FSS II member. Every year 40 deaths were estimated (300x40=12,000) and the amount should be paid in advance.
Currently the membership joined was nearly 3,000 and we are looking forward to reaching a target of 5,000 members. Currently the claim amount with 3,000 members is Rs. 8 Lakhs when the membership increases, the claim amount also increases.

FSS I & FSS II applications should be forwarded by the local branch secretary.

IMA TNSB SCHEMES

IMA FSS FAMILY HEALTH SCHEME

All the members and their spouses of FSS 1 and FSS 11 of IMA TNSB are eligible.
Up to Rs.30000/- per claim every 6 months up to 2 claims in a year for the members in either FSS 1 or FSS 11.
Up to Rs.60000/- per claim every 6 months up to 2 claims in a year for the members in both FSS 1 and FSS 11.

IMA FSS Secretary Office
77,Chinna Kadai Street,
1st Floor (Opp. District Forest Office),
Tiruvannamalai, Tamil Nadu, Pin: 606601.
Phone:9840537178; Mobile No:9840537178
Email:imatnsbfss@gmail.com

IMA MEMBERSHIP

For details, please contact our office secretary Mr. Narayanan, contact No.9841661112.
For forms visit,
http:ima-india.org/ima/pdfdata/membership-form-2024.pdf

PPLSSS
(Professional Protection Linked Social Security Scheme)

Helps you to counter C.P.A; Makes you to shed your defensive practice
Best defense in the offensive society; Coverage from the day of enrolment; Guidance & Safeguarding from day one of receiving notice.
Compensation upto Rs. 30/- Lakhs for 5 years (based on the Subscription);Immediate Financial grant Rs. 1,00,000- in case of demise of a member, Rs. 50,000/- for membership below 5 years.

PPLSSS NEW MEMBERS SUBSCRIPTION (for a block of 5 years)

Compensation	Rs.10 lakhs	20 lakhs	30 lakhs
General Practitioner	8260	15340	23600
Specialist	10620	20060	28320

Payment options DD. DD should be taken in the name of "PPLSSS OF IMA TN" Payable at Dharmapuri

PPLSSS RENEWAL MEMBERS -(BLOCK OF 5 YEARS)

Compensation	Rs.10 lakhs	20 lakhs	30 lakhs
General Practitioner	7080	14160	22420
Specialist	9440	18880	27140

Payment options DD. DD should be taken in the name of "PPLSSS OF IMA TN" Payable at Dharmapuri

Contact:
Dr. M.Chandrasekar,
Hony. Secretary of PPLSSS IMA TNSB,
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66/27, South Railway Line Road, Kumaraswamy Pettai,
Dharmapuri - 636701.

Mob:9487272627, 9150515253

E-mail: secretarypplsss@gmail.com

IMA NSSS
(IMA National Social Security Scheme)

The schemes purely designed on brotherhood fraternity basis, and try to help the family member (Nominee) of the member on the event of death of IMA NSSS member.

Any life member of I.M.A., up to age of 60 years residing in India is eligible to become a member of this scheme but members above the age of 40 years and below the age of 60 years, must be life member of IMA at least for 3 years on the day of joining the scheme.

At present we have 19,564 members enrolled and paid ₹ 11,31,130.00 to the last deceased member's nominee

On event of death (by any cause), rest of the members contribute a token share of Rs. 100-00, from which Rs. 70-00 is passed on to the nominee.

After 25 years of continuous membership, the member has not to contribute the same and the Fraternity Contribution (F.C.) will be paid to the nominee by the scheme.

BENEFIT FOR MEMBERS ENROLLED AFTER 19/07/2002 : For members enrolled after 19/07/2002, benefit of Fraternity Contribution of the scheme liable after completion of one year of membership of I.M.A. N.S.S.S. However nominee of member be entitled for such benefits if death of member occurs in accident event within one year of joining the scheme.

Contact for Membership

Kindly contact on below email / call to get the membership information

Call us +91-79-26585430

Mail: imansss1@gmail.com

Mail: contact@imansss.org

https://www.imansss.org/

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OFFICE-BEARERS

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President Elect	Dr.DP Prakash,
Vice President	Dr Priya Kannan
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Joint Secretary	Dr.S.Indra
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Women's forum	Dr S Sheela; Dr B Rekha
	Dr P Puspha
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