



ALWAYS FIRST ALWAYS BESTSM

MADURAI MEDICAL JOURNAL

Official Journal of IMA Madurai Meenakshi Branch
ISSN. No. : 0972-3056 RNI. No. 55383/92



MMJ REACHING OVER **10,000** DOCTORS



VOLUME-33 | MARCH 2024 | MONTHLY ISSUE | ISSUE - 03 | PRICE 12

www.mmhrc.in     @officialMMHRC



ET

Excellence Awards

MADURAI & TRICHY - 2024



Dr. K. Sampath Kumar receives the **Life Time Achievement and Pioneer in Laparoscopy - Award** on behalf of **Dr. Ramesh Ardhhanari, Medical Director, Meenakshi Mission Hospital and Research Centre, Madurai.**



Dr. Krishnakumar Rathnam, Sr. Consultant - Dept. of Medical Oncology, Meenakshi Mission Hospital and Research Centre, Madurai receives the **Centre of Excellence Award - South Tamil Nadu**



Dr. K. Sampath Kumar **Head - Dept. of Nephrology, Meenakshi Mission Hospital and Research Centre, Madurai** receives the **Bestest Dialysis Centre Award - South Tamil Nadu**



Dr. Ganesan, Head - Dept. of Cardiology, Meenakshi Mission Hospital and Research Centre, Madurai receives the **Centre of Excellence Award for Cardiology - South Tamil Nadu**



Dr. Selvamuthukumar, Head - Dept. of Neurosurgery, Meenakshi Mission Hospital and Research Centre, Madurai receives the **Pioneer in Management of Neurotumors in Neurosurgery - South Tamil Nadu**



Dr. Uma Muralidharan, Sr. Consultant - Dept. of Paediatric and Neonatology Meenakshi Mission Hospital and Research Centre, Madurai receives the **Pioneer in Child Development Centre Care Award - South Tamil Nadu**

A LEGACY OF EXCELLENCE

The **ET EXCELLENCE AWARDS** for Madurai and Trichy for 2023-24 shine a spotlight on the most outstanding contributors and exemplars of excellence. These awards honor individuals for their groundbreaking performances within their respective sectors year after year, setting a benchmark for excellence across all industries.

Madurai Meenakshi Mission Hospital and Research Centre has garnered recognition in six categories within the medical field, highlighting our dedication to excellence in healthcare.

The above awards were delivered by the famous South Indian Film actress **Mrs. Hansika Motwani.**

Editorial board

PATRONS

Dr. N. Sethuraman, M.S.,M.Ch.(Uro),MNAMS.(Uro),FICS,
FOUNDER - MMHRC

Mrs. C. Kamini Gurushankar, M.B.A.,
TRUSTEE

ADVISORS

Dr. Ramesh Ardhanari, M.S.,M.Ch.(GE), FRCS.(Glasgow)
MEDICAL DIRECTOR & ACADEMIC CHAIRMAN

Dr. B. Kannan, M.D.,DCH.,
MEDICAL ADMINISTRATOR

Dr. S. Kumar, M.D (Anaes),Ph.D.,
ACADEMIC SECRETARY

Dr. K.S. Kirushnakumar, M.D.(RT),
ACADEMIC CO-ORDINATOR

IMA MADURAI MEENAKSHI BRANCH

Dr. K.M. Senthilkumar, MBBS., DA, DNB.(Anes),
PRESIDENT

Dr. M. Karthikeyan, M.D.(Psych),
VICE PRESIDENT

Dr. P. Ananda Selvakumar, M.D.(RT),DNB.(RT),FIPM.,
HONY. SECRETARY

Dr. R. Ganesh, MBBS., DMRD., DNB., (Radio), FRCR,
HONY. JOINT SECRETARY & TREASURER

EDITORIAL BOARD MEMBERS

Dr. P. Krishnamoorthi, M.D.,

Dr. T. Mukuntharajan, M.B.B.S.,DMRD.,

Dr. K. Sampath Kumar, M.D.,DNB.,D.M.(Nephro),FRCP.(Glasgow),

Dr. S. Padma, M.D.,DNB.(O&G),

Dr. N. Maharajan, M.D.(Anaes),DA.,

Dr. R. Ravichandran, M.S.,DNB.(Uro),

Dr. Venugopal Konanki, M.S.,

Dr. K.S. Anand, M.D.(Anaes),

Dr. V. Sathya Narayana, M.S.,D.Ortho.,DNB.,

Dr. Rm. Krishnan, M.S.,DNB.,M.Ch.(CTS),

Dr. R. Sivakumar, M.D.,DNB.(Cardio),

Dr. S. Selvamani, DNB.(GM), DNB.(Cardio),

Dr. N. Ganesan, M.D.,D.M.(Cardio),

Dr. M. Sampathkumar, M.D.,D.M.(Cardio),

Dr. A. Kannan, M.D.(Paed),

Dr. K. Selvamuthukumaran, M.B.B.S.,M.Ch.(Neuro Surg.),

Dr. N. Karunakaran, M.B.B.S.,DMRD.,DNB.(Radio),

Dr. N. Mohan, M.S.,DNB.(SGE),FACS.,

Dr. T.C. Vijay Anand, M.D.,DNB.(Neuro),

Dr. D.R.Nageswaran, M.B.B.S.,DLO.,DNB.,

Dr. C.R. Maheshbabu, M.D.,D.Diab.,

Dr. Narendra Nath Jena, M.B.B.S.,

Dr. R. Vijaya Bhaskar, M.S.,M.Ch.(Surg. Onco),

Dr. S. Senthilkumar, M.D.(Paed),FNB.,

Dr. M. Rajan, M.S.,MC.h.(CTS),

Dr. T. Kasi Viswanthan, M.D.,D.M.(Haem),

Dr. PL. Alagammai, M.D.,DM.(GE),

Dr. G. Velkumar, M.D.(Pulmo),

Dr. S. Karthikeyan, M.B.B.S.,

Dr. C.N.B. Harisankar, M.D.(Nuclear Medicine),

Dr. P. Jayapandian, M.D.,DNB.(Cardio),PDE(EP), CEPS

Dr. U.T. Vassan, D.ortho.,MSc.,ortho.(UK),FRCS.(UK),

CO-ORDINATION & COMPILATION

Marketing & Designing Team



From the Editor's Desk

Dear friends,

Greetings. March marks a significant occasion as we come together to observe **NO SMOKING DAY**.

Smoking among healthcare professionals in India presents a complex challenge with profound implications. Despite their knowledge of the health risks associated with smoking, a significant number of healthcare workers continue to smoke. This phenomenon not only undermines their own health but also compromises their credibility as role models for patients and the public.

Several factors contribute to smoking among healthcare professionals in India. Stress, long working hours and easy access to tobacco products are common triggers. Additionally, social norms and cultural influences play a significant role, as smoking is often perceived as a way to cope with stress or to socialize within medical communities.

Addressing smoking among healthcare professionals requires multifaceted interventions. Comprehensive tobacco control policies within healthcare institutions, including designated smoke-free areas and cessation support programs are essential. Educational campaigns focusing on the unique risks of smoking for healthcare workers can also raise awareness and encourage behaviour change.

Furthermore, fostering a supportive and non-judgmental environment is crucial for healthcare professionals seeking to quit smoking. Peer support groups and counselling services can provide valuable resources for those attempting to break free from nicotine addiction.

By addressing smoking among healthcare professionals, we are not only improving the health and well-being of medical workforce but also set a positive example for the broader population, ultimately contributing to a tobacco-free society.

Thanking you,
Yours sincerely,

Dr. P. ANANDA SELVAKUMAR MD(RT), DNB(RT)

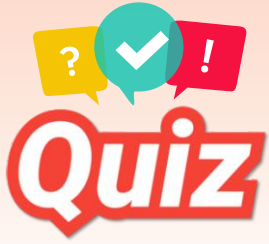
Fellow in Radiosurgery, Fellow in Palliative medicine,

Editor in Chief – MMJ

Senior Consultant - Dept. of Radiation Oncology

Mobile: 98943 33759 Email: drask81@gmail.com

SPOTTER - 03



Quiz prepared by :

Dr. P. Ananda Selvakumar

Senior Consultant - Dept. of Radiation Oncology, MMHRC

A 3 months old male child admitted in a paediatric oncology ward with bilateral orbital swelling and seizures. On CT studies, calcified mass in both eye globes were noted along with a calcified suprasellar mass. What is the most probable diagnosis?

- Please send your answer before **26th of April, 2024.**
- Write your full name, qualifications and place of practice.
- Answer can be sent through **SMS - 7373747905**
- **E-mail: mmjquiz@gmail.com**
- For enquiries please contact above phone number.

SPOTTER - 02



last Month



quiz ANSWER

40 years old male presented to an emergency room after a fall downstairs. Chest x ray had been done as a part of trauma workup. AP radiograph had opacity at the right lung base, hence CT THORAX had been done. What's the most likely diagnosis?

The answer is : ECTOPIC INTRATHORACIC KIDNEY

Ectopic intrathoracic kidney is an anomaly where one kidney resides in the chest rather than retroperitoneally. The aetiology of ectopic intrathoracic kidney may be blunt injury, diaphragmatic abnormalities, or congenital developmental anomaly. It is typically asymptomatic.

In this case, the condition was discovered incidentally on imaging performed as part of a trauma workup. There was a right posterior diaphragm defect (Bochdalek hernia), and these are known to be associated with ectopic thoracic kidneys. No haemorrhage or laceration was seen to suggest a traumatic cause. The condition was asymptomatic in this patient. The right adrenal gland was not clearly visible.

MMHRC, Congratulates

The following doctors for the correct answer. (Last Month Quiz)



➤ Dindigul

Dr. Karmegam (Nilakkottai)

➤ Kanyakumari

Dr. P. Jagadees Manuel (Nagercoil)

Dr. G. Madhusudhan (Sucintram)

Dr. W. Rodrigues (Kulasekaram)

➤ Madurai

Dr. K.R. Santha Ram

Dr. Selvaraj

Dr. Thuthasan Pava

➤ Ramnad

Dr. Shifa

➤ Salem

Dr. Mariappan

➤ Sivagangai

Dr. Sethupathi

➤ Theni

Dr. Nalini

➤ Tirunelveli

Dr. George Tilak

Dr. G. Padmanaban

➤ Tuticorin

Dr. M. Dhanushkodi

➤ Virudhunagar

Dr. P. Aravind Babu

Dr. M. Saravanan

WELCOME TO MEENAKSHI FAMILY



Dr. S. JAYAKUMAR

MBBS., DNB(Ortho), D.Ortho
Consultant
Dept. of Orthopaedics

- Special interest in Complex Trauma, Spine and Pelvicacetabular surgeries.
- Completed fellowship in spine at Chongqing, China's South West Hospital.
- TNOA Traveling Spine Fellowship in Coimbatore's Ganga Hospital.
- AO SPINE fellowship from Bombay Hospital and Research Centre, Mumbai
- Worked as a consultant Ortho Surgeon in Devadoss Hospital, Madurai for 9 years and at Thiraviam Ortho Hospital, Tuticorin.



Dr. GAYATHRI RANIE .A.P.

MD(Gen.Med)
Associate Consultant
Dept. of General Medicine

- After completion of MD (Gen Medicine) worked as a senior resident at Department of General medicine at PSGIMSR, Coimbatore for a year and
- At JIPMER, Pondicherry for two years.



Dr. P. NAVEEN

MD(Anaesthesiology), DrNB(CCM)
Associate Consultant,
Dept. of Critical Care Medicine & Toxicology

- Completed DrNB Critical Care Medicine from MMHRC in the year 2023 and
- Joined as an Associate Consultant at the Department of Critical Care Medicine.



Dr. S. KAMALAKANNAN

MS(Gen.Surg.),M.Ch(Surg.Oncology)
Associate Consultant
Dept. of Surgical Oncology

- Completed General Surgery in Stanley Medical College.
- Worked as a registrar in Vijaya Hospital, Vadapalani, Chennai.
- And as a Senior Resident at Surgical Oncology Department, JIPMER, Pondicherry for over 3 years.



Dr. A. JABERLIN SNEHA

MBBS.,DNB(GM), DM(Neuro)
Associate Consultant,
Dept. of Neurology

- Completed MBBS at SMVMCH, Puducherry.
- DNB (General medicine) at MMHRC, Madurai.
- DM (Neurology) at Govt. Tirunelveli Medical College.



Dr. N. MADHUMITHA

MD(Anaesthesiology), DrNB(CCM)
Associate Consultant,
Dept.of Critical Care Medicine & Toxicology

- MBBS - Madurai Medical College, Madurai.
- MD (ANESTHESIA) - Lady Hardinge Medical College, New Delhi.
- DrNB - Critical Care Medicine - MMHRC, Madurai.



Dr. S. RAJA VASANTH

MD(Transfusion Medicine)
Associate Consultant
Transfusion Medicine Physician

- After completing MD Transfusion Medicine from CMC Vellore in the year 2020 worked as a blood centre consultant in Christian fellowship hospital, Oddanchatram for three years.

MMHRC WISHES THE FOLLOWING WEDDED COUPLES

20.03.2024

Dr.N.R.Nandhini Kumari, MBBS.,

D/o. Dr.S. Radhakumari, MD.,
Kochadai
WEDS

Dr.M.Ramesh Ram, MD(Anaesth)



27.03.2024

Dr. S.B. Sindhujha, MS(ENT)

D/o. Dr. S. Balasankar, MD., DCH.,
Dean, Govt. Theni Medical College &
Dr. S. Jeyalakshmi Rani, MBBS., DGO.,
CCS, ESI Hospital, Madurai
WEDS

Dr. M. Anvesh, MS(Gen.Surg)

Asst. Professor, Govt. Medical College,
Nalgonda, Telangana.

IMA MEETING



IMA Madurai Meenakshi Branch and MMHRC, Madurai, together Organized a CME ACADEMIC MEET, on 16/02/2024, at MMHRC. **Dr. Ananthaselvakumar**, Sr. Consultant - Radiation Oncologist, **Dr. U.T. Vassan**, Sr. Consultant - Sports Ortho Surgeon, **Dr. K.M. Senthilkumar**, Anaesthesiologist and **Dr. Sampathkumar**, Sr. Consultant - Dept. of Cardiology, MMHRC participated on the occasion. **Dr. J. Terrence Jose Jerome**, delivered a talk on topic "How to write and publish a Scientific Paper"

WORLD KIDNEY DAY - 2024



MMHRC Organized "World Kidney Day" Celebration at MMHRC. Chief Guest **Rtn. Haneef Thayub**, President, Rotary Club - Madurai West, released a Book to mark the World Kidney Day to the beneficiaries. **Dr. Andrew Deepak** delivered the "Welcome address" while **Dr. K. Sampath Kumar**, Head-Dept.of Nephrology, MMHRC, **Dr. R. Ravichandran**, Head-Dept.of Urology, MMHRC, **Dr. Paul Vincent**, Sr. Consultant, Dept. of Urology, MMHRC and **Dr. B. Kannan**, Medical administrator, MMHRC, Participated on the Occasion. And **Mr. Kamalakannan**, Head-Dept. of Health Check up, MMHRC also participated.

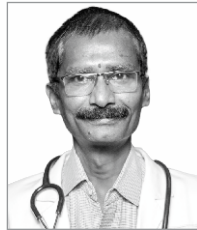


PARKINSON'S DISEASE

- AN ORTHOPEDIC PERSPECTIVE

CORRESPONDING AUTHOR :

Dr. K. GUNA PRATHEEP MBBS; M.S (Ortho); FNB (Spine surgery);
Fellowship in Endoscopic Spine Surgery (South Korea)
Associate Spine Consultant, Spine Unit - Department of Orthopaedics and Traumatology,
Meenakshi Mission Hospital & Research Centre, Madurai - 625 107.
Phone: 0452 426 3000 | E-mail: guna.hytech@gmail.com



Dr. SATHYANARAYANA .V
MS.(Ortho), D.Ortho,DNB(Ortho),MNAMS.,
HOD & Sr. Consultant
Dept. of Orthopaedics Surgery



Dr. VETRI NALLATHAMBI
MS. (Ortho), DNB. (Ortho), FNB.(Spine),
Consultant
Dept. of Spine Surgery

ABSTRACT: Parkinson's disease is a common disorder in the elderly population that has an adverse impact on the productivity of the aging population. Though primarily it is a disease treated by neurologists, it could affect other systems during the progress of the disease. Its effects on the musculoskeletal units and global spinal balance make it an important pathology in orthopedic practice. This article emphasizes the important aspects of this disorder from an orthopedic surgeons perspective, which could potentially aid in patient management.

KEYWORDS : Parkinson's disease, Elderly, Musculoskeletal units, Spinal balance, Management.

INTRODUCTION

Parkinson's disease (PD) represents the second most common neurodegenerative disorder in the world and has a major social impact in medical and economic terms. It manifests with disturbances in posture and movement due to musculoskeletal changes and alters the quality of life of the patients. Its

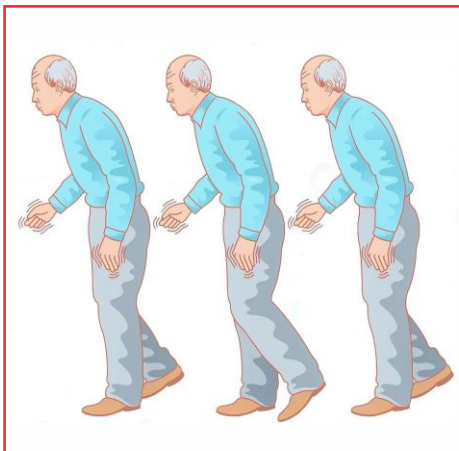


Fig 1 : shows the forward stoop posture in patients with Parkinson's Disease

implications in the appendicular and axial skeleton present unique challenges to orthopedic surgeons as the patients are the elderly population with degenerative changes already set in. Understanding the interplay between PD and skeletal health is crucial for providing comprehensive care to the affected individuals. This manuscript offers a brief insight into PD, its role in unique spinal pathologies, and the considerations for surgical interventions to improve surgical outcomes.

PATHOGENESIS OF PD

PD is heterogeneous and a dynamic disorder (i.e., symptoms change during the disease course) with various motor and non-motor symptomatology. The typical clinical features involve movement disturbances consisting of bradykinesia, resting tremor, and rigidity, with postural instability (fig 1) occurring at a later stage.

The literature evidence suggests that non-motor symptoms like sleep disturbances, hyposmia, and constipation begin much earlier in the disease course. The primary pathology arises due to the loss of dopaminergic neurons of the substantia nigra pars compacta, and the pathological hallmark is intracellular aggregates of α -synuclein, in the form of Lewy bodies.

ORTHOPEDIC CONSIDERATIONS IN PD

HIP FRACTURES : Postural instability and gait abnormality may result in falls and a high chance of recurrent hip fractures. Cheng et al., in their study of patients with PD, observed that out of 100 patients, more than 50% (56 patients) had a fall after the onset of the disease. PD females are in fact at a much higher risk than males. The incidence is strongly associated with the duration of the disease, freezing of gait, postural instability, non-motor symptoms, and a

high levodopa daily dosage. Short- and long-term outcomes in patients with PD following hip fracture are generally considered to be worse than patients without PD.

OSTEOPOROSIS : Osteoporosis is the most common bone disease and in PD the incidence is much higher. This further aggravates the risk of fractures associated with falls. Several authors recommend bone density assessment for all women with PD and in patients with a higher modified mean Morse Fall score. Low bone mass also affects the fracture fixation post-operatively and increases the chance of implant failure. These patients must be aggressively treated with anabolic or anti-resorptive agents for osteoporotic management.

SARCOPENIA : Sarcopenia is recognized as a muscle disease with low muscle mass, and muscle function, thereby impacting the quality of life by the World Health Organization. It is believed to be one of the important causes of morbidity in the aging population and in PD, reduced mobility further accentuates accelerated muscle loss. The incidence of falls in PD patients with sarcopenia was

higher than that in PD patients without sarcopenia and early assessment of sarcopenia should be performed in PD to avoid falls and associated disability. Wu et al reported an increased fat percentage of the thigh due to fatty infiltration and reduced core muscle loss that was noted in PD patients and they attributed this to the volume reduction of grey matter in the uncus and superior temporal gyrus. Besides central nervous system involvement, the disease also reduces the number of peripheral motor units contributing to neurogenic sarcopenia. Current strategies for sarcopenia assessment include routine anthropometric analysis, bioelectrical impedance analysis, DEXA, and MRI scan. Considering the prognosis of PD patients, preventive strategies and early identification of sarcopenia should be included in the management of orthopedic pathologies.

SPINE CONCERNS

LOW BACK ACHE : Chronic LBA and impaired lumbar range of motion are commonly associated with PD patients. Forward stooped posture is usually seen as the disease advances and this alters

the spinal biomechanics. There is exaggerated thoracic kyphosis with reduced lumbar lordosis and anterior pelvic tilt. Complications following lumbar fusions are also higher in PD patients, especially with longer constructs. Also, an unusual correlation between hyposmia and REM behavioral disorder has been found to increase the risk of postoperative delirium following spine surgeries. Hence, spine surgery in PD patients should be performed after proper clinical evaluation and counseling of these patients.

CAMPTOCORMIA AND ANTEROCOLLIS :

Camptocormia is an axial postural deformity characterized by abnormal thoracolumbar spinal flexion usually seen while standing and walking (fig 2). The prevalence of PD-associated camptocormia in the literature ranges from 3% to 18%. However, it is also seen with other neurodegenerative conditions like Alzheimer's disease, muscle atrophy, and autoimmune disorders. It is unlike a structural kyphosis and is correctable using maneuvers like a high frame walker (HFW) or standing against the wall. As the disease severity increases, patients assume an anthropoid posture (head and trunk parallel to the ground with arms swinging normally). Treatments like lumbar corset, botulinum injection, pallidotomy, deep brain stimulation, and surgical deformity correction have been proposed in the literature, but still lacking clarity of evidence regarding the superiority of these options

“Anterocollis” is a similar entity of the cervical spine and is a term used to describe dropped-head syndrome (fig 2). The cause of anterocollis in Parkinsonism is due to the dystonia of cervical flexors, myopathy of cervical extensors, or both. Studies have shown that few patients with drop head in PD improve with an increase in the dose of anti-parkinsonian medication.

PISA SYNDROME : Pisa syndrome is defined as $>10^\circ$ lateral flexion in the

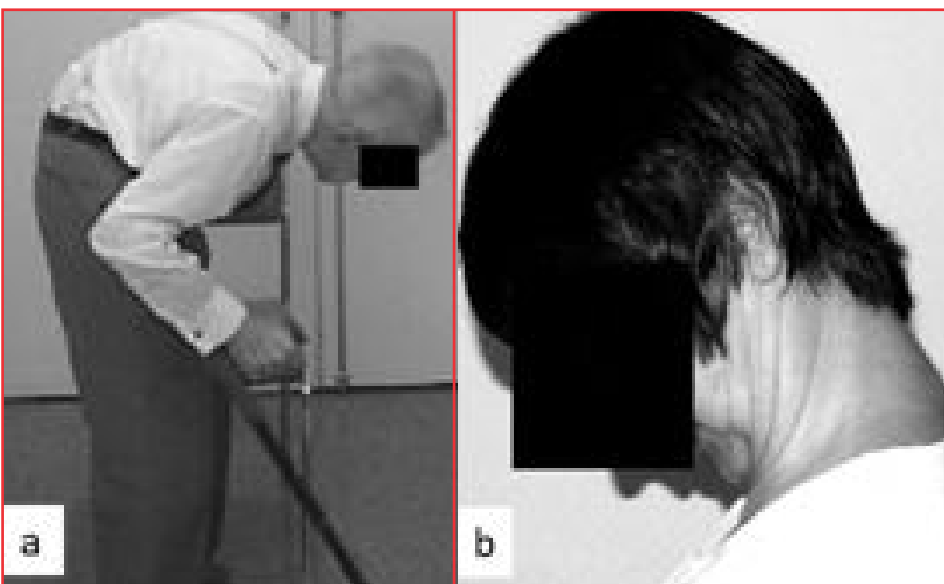


Fig 2 : (a) showing thoracolumbar kyphosis in a 75 year old male patient with advanced PD (b) Anterocollis. Both these features are seen in PD due to the axial muscle dystonia



Fig 3 : showing lateral deviation of the trunk – PISA deformity in Parkinson's disease

standing position and it is described in the context of PD (fig 3). The majority of the time, it is flexible and appears while standing upright and disappears while lying supine. Axial dystonia, poor recruitment of trunk muscles, and more complex impairment of proprioceptive motor control are proposed to be some of the important causes of Pisa syndrome. The role of neuroleptics in PISA syndrome has also been quoted in several studies. Clinicians should differentiate Pisa deformity from scoliosis in the elderly as the later is more of a degenerative phenomenon and the deformity is not limited to only one plane. Practically, patients may present with overlapping features of both these entities.

JOINT RELATED ISSUES : As mentioned previously, sarcopenia resulting in muscle weakness alters the joint biomechanics, especially weight-bearing joints like the knee joint. Studies have shown the alteration of knee extensor strength during transitioning postures, affecting the dynamic postural stability. PD patients are also at risk of severe knee flexion deformity and extensor deficit rigidity. However, the clinicians must be vigilant and differentiate the knee pain arising due to arthritis or flexion deformity to

provide appropriate care to these patients. Regarding the surgical considerations in these patients, surgeons should always use a constrained prosthesis when planning knee arthroplasty. This would provide increased stability and decrease the risk of anterior tibial displacement.

Shoulder pain is also a relatively common complaint in Parkinson's patients. It is mostly due to the rigidity of deltoid musculature. This along with supraspinatus disruption could result in anterosuperior migration of the humeral head increasing the risk of shoulder dislocation. Studies investigating the surgical outcomes following shoulder replacement also showed that the functional and pain score improvement was less optimal compared with the normal population.

GAIT ABNORMALITY IN PD : Human gait is a sequence of involuntary movements, cyclically repeated and triggered by voluntary movement. The typical gait cycle includes a stance (60%) and a swing phase (40%). This is altered in Parkinson's disease as patients adopt a “festinant/propulsive gait”- narrow walking base, short quick steps with increased cadence, and reduced step length. In the early stages, there is a reduction in the amplitude of arm swing, smoothness of locomotion, and interlimb asymmetry. As the disease advances, motor automaticity is further impaired causing defragmentation of turns (turning en bloc) with difficulty in gait initiation and inability to stop abruptly while walking. Gait analysis is an area of ongoing interest among researchers and early identification tools to diagnose Parkinson's disease are yet to be validated on a large scale.

CONCLUSION

Parkinson's disease though a neurological entity, involves the musculoskeletal integrity and functioning of various bony

structures and motion dynamics. Hence, a holistic analysis and treatment options must be discussed and considered in these patients. As surgeons, we must also understand the importance and implications of medical management to improve the surgical outcomes in these patients.

REFERENCES

1. Cheng K-Y, Lin W-C, Chang W-N, et al. Factors associated with fall-related fractures in Parkinson's disease. *Parkinsonism RelatDisord* 2014;20(1):88–92.
2. Lima DP, de Almeida SB, Bonfadini JC, de Luna JRG, de Alencar MS, Pinheiro-Neto EB, et al. Clinical correlates of sarcopenia and falls in Parkinson's disease. *PLoS ONE*. (2020).
3. Cai Y, Feng F, Wei Q, Jiang Z, Ou R, Shang H. Sarcopenia in Patients With Parkinson's Disease: A Systematic Review and Meta-Analysis. *Front Neurol*. 2021 Mar 5;12:598035.
4. Wu YN, Chen MH, Chiang PL, Lu CH, Chen HL, Yu CC, et al. Associations between brain structural damage and core muscle loss in patients with Parkinson's disease. *J Clin Med*. (2020) 9:239. 10.3390/jcm9010239.
5. Srivaniachapoom P, Hallett M. Camptocormia in Parkinson's disease: definition, epidemiology, pathogenesis and treatment modalities. *J NeurolNeurosurg Psychiatry*. 2016 Jan;87(1):75–85.
6. Revuelta GJ, Benatar M, Freeman A, Wichmann T, Jinnah HA, DeLong MR, Factor SA. Clinical subtypes of anterocollis in Parkinsonian syndromes. *J NeurolSci* 2012;15;315(1–2):100–103.
7. Atsuzaki, T.Kokubu, Nagura I. et al. Anterosuperior dislocation of the shoulder joint in an older patient with Parkinson's disease. *Kobe J Med Sci*. 2009; 54: E237–E240
8. Kryzak TJ, Sperling JW, Schleck CD, et al. Hemiarthroplasty for proximal humerus fractures in patients with Parkinson's disease. *ClinOrthopRelat Res* 2010;468(7): 1817–21.
9. Di Biase L, Di Santo A, Caminiti ML, De Liso A, Shah SA, Ricci L, Di Lazzaro V. Gait Analysis in Parkinson's Disease: An Overview of the Most Accurate Markers for Diagnosis and Symptoms Monitoring. *Sensors (Basel)*. 2020 Jun 22;20(12):3529.



PRE INDUCTION TRANSVAGINAL SONOGRAPHIC MEASUREMENT OF CERVICAL LENGTH IN THE PREDICTION OF LABOUR OUTCOME

CORRESPONDING AUTHOR :

Dr. S. PADMA MD.(Obs & Gyn),DNB.(Obs & Gyn),
Sr.Consultant & HOD - Dept. of Obstetrics & Gynaecology
Meenakshi Mission Hospital & Research Centre, Madurai - 625 107.
Phone: 0452 426 3000 | Mobile: 94430 22046



Dr. P. DAPHIN

MBBS., DNB.,(OG),
Consultant

Department of Obstetrics & Gynaecology



Dr. M. REVATHI DNB

Resident

Dept. of obstetrics & Gynaecology

ABSTRACT: Trans-vaginal cervical length measured before induction can be used to predict successful vaginal delivery. In future, the traditional method of assessing the favorability of cervix can be used as an adjunct by trans- vaginal cervical measurement and add yet another dimension in the field of obstetrics.

KEYWORDS : Transvaginal cervical length, induction , favourability.

INTRODUCTION

Induction of labour is the process of artificially stimulating the uterus to start labour, with an aim to achieve vaginal delivery. Transvaginal ultrasonography (TVS) has gained increasing application in obstetrics in the area of induction of labour. The supravaginal portion of the cervix, which typically accounts for about half of cervical length, is very difficult to assess digitally but can be easily assessed by TVS. Furthermore, ultrasonography findings are reproducible eliminating interobserver variability. This study aims to determine the role of transvaginal ultrasound, with its ability to objectively measure the cervical parameters to predict the outcome of induction.

RESULTS

1) OBSTETRIC SCORE

Obstetric score	Number of cases
Primi	55
Multi	45

METHODOLOGY

A prospective observational study conducted in 100 pregnant women with gestational age of 37 to 42 weeks decided for labour induction and delivered in the Department of Obstetrics and Gynaecology at Meenakshi Mission Hospital and Research Centre, Madurai.

Study duration : 16months

Study period : Aug. 2022 – Nov. 2023

Agent used: Dinoprostone (PG E2) gel

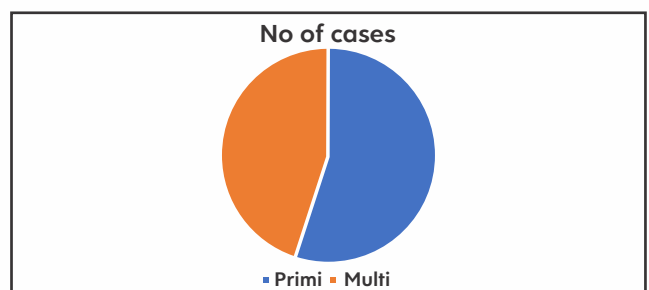
During induction, partograph was plotted during active phase of labour. Intermittent fetal monitoring during latent phase, continuous fetal heart rate monitoring during active phase was done. Adequate pain relief was given, preinduction enema was given.

INCLUSION CRITERIA :

- Singleton pregnancy
- Term gestation(37-42weeks)
- Cephalic presentation,
- Reactive CTG,
- Bishop score <6,
- No contra indications for vaginal delivery.

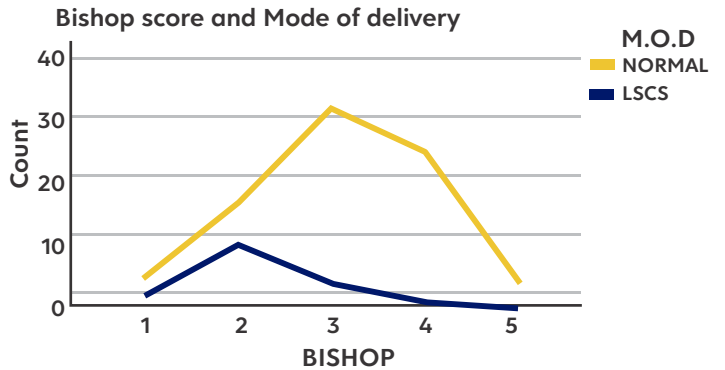
EXCLUSION CRITERIA :

- Antepartum haemorrhage,
- Previous uterine surgeries.
- Fetal distress
- Any conditions that preclude vaginal delivery



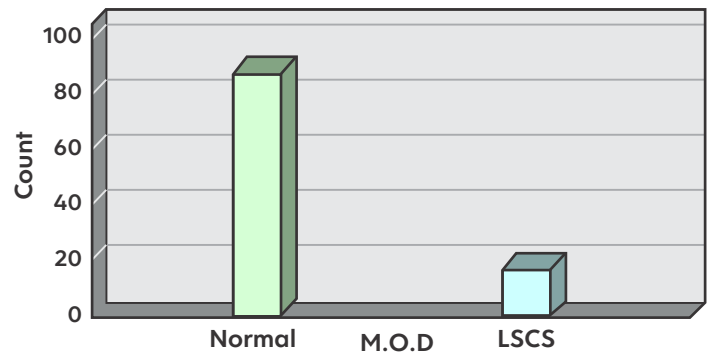
2) BISHOP SCORE

BISHOP Score	Total cases	Mode of delivery			
		Normal delivery		LSCS	
		No	%	No	%
1	7	5	71.4	2	28.5
2	27	17	62.9	10	37.0
3	36	32	88.8	4	11.1
4	26	25	96.1	1	3.84
5	4	4	100	0	0



3) MODE OF DELIVERY

Mode of delivery	Cases	
	No	%
LSCS	17	17
Normal vaginal delivery	83	83
Total	100	100



83% of women delivered vaginally and 17% delivered by LSCS

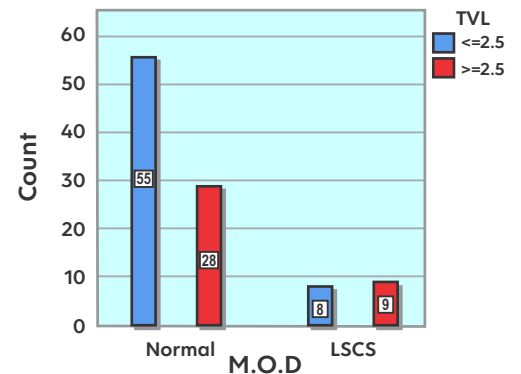
4) TRANSVAGINAL CERVICAL LENGTH :

Transvaginal cervical length	Cases	
	No	%
≤ 2.5 cm	63	63
> 2.5 cm	37	37
Total	100	100

Range	0.5 – 4.2 cm
Mean	2.39 cm
SD	0.63 cm

Transvaginal cervical length (TVL) and mode of delivery

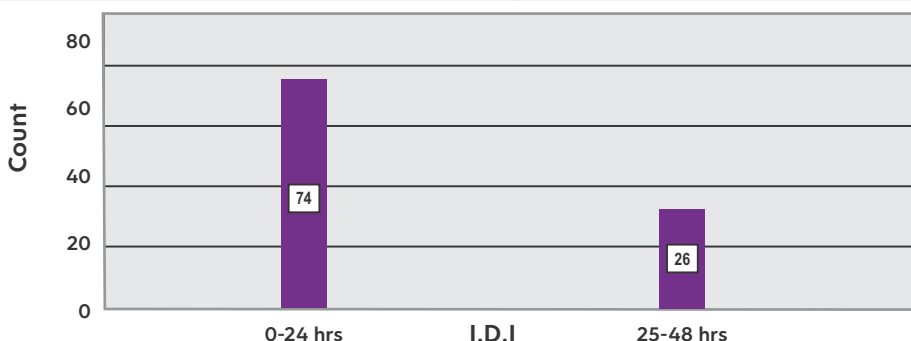
Trans vaginal cervical length (cut off value as per ROC curve)	Total cases	Mode of delivery			
		Normal delivery		LSCS	
		No	%	No	%
≤ 2.50 cm	63	55	87.3	8	12.6
> 2.50 cm	37	28	75.6	9	24.3
'p'	0.00 < 0.05 Significant				



5) INDUCTION DELIVERY INTERVAL

The mean induction delivery interval in our study is 20hours (2.2-73.2hours).

Induction delivery interval	Cases	
	No	%
0-24hours	74	74
25-48hours	26	26
Range	5 - 48 hours	
Mean	19.58 hours	
SD	11.01 hours	



DISCUSSION

Labour induction is the stimulation of uterine contractions before the spontaneous onset of labour, with or without ruptured membranes. When the cervix is closed and uneffaced, induction will often commence with cervical ripening, that generally employs Prostaglandins to soften and open the cervix. Incidence of labour induction is 20.36%.The prediction of successful vaginal delivery is based on favourability of cervix before induction which is determined by Bishop's score. But this assessment is subjective and studies have proved to have poor predictive value for induction outcome in women with low Bishop's score.

MODIFIED BISHOP'S SCORE

Score	0	1	2	3
Cervical position	Posterior	Central	Anterior	
Cervical consistency	Firm	Medium	Soft	
Cervical length	> 4cm	3 - 4cm	1 - 2cm	< 1cm
Cervix dilatation	0	1 - 2cm	3 - 4cm	5 - 6cm
Station of presenting part	-3	-2	-1 & 0	+1, +2

Advantages of TVS cervical length measurement:

- Easily reproducible method
- Minimal discomfort to patient
- Inter observer variation is less
- Supravaginal portion of cervix cannot be assessed digitally
- Assessment of the effacement which begins at the level of internal os is difficult to predict in closed cervix digitally.

Transvaginal cervical length measurement steps:

- 1 Empty the bladder
- 2 Transvaginal probe is covered with condom
- 3 Probe is placed in anterior fornix & cervical length is measured in sagittal plane with long axis viewing echogenic endocervical mucosa along entire length of cervical canal
- 4 Avoid undue pressure over cervix to avoid false lengthening of cervix

**CONCLUSION**

My study showed that transvaginal cervical length measurement by ultrasound in predicting successful labour outcome was statistically significant. Hence preinduction assessment of cervical length by TVS can be used as an adjunctive tool along with Bishop Score to predict labour outcome better.

Limitations: Presence of other confounding factors like BMI, parity, presence of risk factors, AFI which can affect the labour progression and outcome.

REFERENCES

1. Agrawal A, Tripathi PS, Bhandari G, Kheti P, Madhpuriya G, Rathore R. Comparative study of tvs cervical score and bishop score in prediction of successful Labourinduction - egyptian journal of radiology and nuclear medicine [Internet]. Springer Berlin Heidelberg; 2022 [cited 2024 Feb 14]. Available from: <https://doi.org/10.1186/s43055-022-00794-0>
2. M; AKRV. Cervical length compared to Bishop's score for prediction of pre-term birth in women with pre-term labour [Internet]. U.S. National Library of Medicine; [cited 2024 Feb 14]. Available from: <https://pubmed.ncbi.nlm.nih.gov/21417642/>
3. Verhoeven CJ, Opmeer BC, Oei SG, Latour V, Van Der Post JA, Mol BW. Transvaginal sonographic assessment of cervical length and wedging for predicting outcome of labor induction at term: a systematic review and meta-analysis. *Ultrasound in Obstetrics & Gynecology*. 2013 Nov;42(5):500-8.
4. Chen W, Xue J, Gaudet L, Walker M, Wen SW. Meta-analysis of Foley catheter plus misoprostol versus misoprostol alone for cervical ripening. *Int J Gynaecol Obstet* 2015;129(3):193-8.
5. Rozenberg P, Chevret S, Chastang C, Ville Y. Comparison of digital and ultrasonographic examination of the cervix in predicting time interval from induction to delivery in women with a low Bishop score. *Br J Obstet Gynaecol* 2005;112(2):192-6.

FORM IV**Statement about ownership & other particulars about Newspaper**

1. Place of Publication : Madurai
2. Periodicity of its Publication : Monthly
3. Printer's Name : N. Jeyakarthyayan
Nationality : Indian
Address : Three Classic Printers,
27, Kakathope Street, Madurai - 625 001.
4. Publisher's Name : Dr. N. Sethuraman
Nationality : Indian
Address : Meenakshi Mission Hospital and Research Centre,
Lake Area, Melur Road, Madurai - 625 107.
5. Editor's Name : Dr. N. Mohan
Nationality : Indian
Address : Meenakshi Mission Hospital and Research Centre,
Lake Area, Melur Road, Madurai - 625 107.

6. Name and addresses of individuals who own Newspaper : Single Owner and Partners of Shareholders holding more than one percent of the total capital

I, Dr. N. Sethuraman, hereby declare that the particular given above are true to the best of my knowledge and belief.

Date: 01-04-2024

Dr. N. Sethuraman
Publisher



ALL BLEEDS ARE NOT COAGULOPATHIES

- A RARE CASE OF HEMATEMESIS IN DENGUE

CORRESPONDING AUTHOR :

Dr. A. KANNAN MD.(Paed.),
Sr. Consultant & HOD - Dept. of Paediatrics & Neonatology
Meenakshi Mission Hospital & Research Centre, Madurai - 625 107.
Phone: 0452 426 3000 | Mobile: 88702 49190.



Dr. UMA MURALIDHARAN
MBBS.,DCH.,DNB.(Paed),PGDDN.,
Sr. Consultant
Dept. of Paediatrics



Dr. S. SENTHILKUMAR
MD(Paed), FNB (Paed Critical Care)
Sr. Consultant,
Dept. of Paediatric ICU



Dr. S. SRIHARINI
MBBS, DNB Resident
Dept. of Paediatrics

INTRODUCTION

Dengue fever caused by Dengue virus is not only versatile in its clinical presentation but also adds on to morbidity and mortality. With rising disease burden, atypical manifestations are also on rise, but are under reported and often missed. These include neurological, hepatic, renal, cardiovascular and other isolated organ involvement and termed as Expanded dengue syndrome/unusual or atypical manifestations of dengue fever. The risk of death is 4 fold higher in children <15 years of age.

CASE REPORT

A 12 years old male child was received in casualty on 16-01-2024 at 5pm with c/o fever for 3 days, c/o vomiting for 2 days – non projectile, non bilious, blood stained, 2-3 episodes/day, c/o black tarry stools for 2 days – 3 episodes/day, c/o abdominal pain for 2 days – localizing to upper abdomen.

TREATMENT HISTORY

H/o intake of native medications – Syp. Clevira [papaya leaf extract]

OUTSIDE INVESTIGATIONS

Hb – 16 g%, TC – 5300 cells/mm³,
Platelets – 1, 46,000 cells/mm³,
PCV – 39%

ON ADMISSION

- Child was conscious, oriented, and afebrile.
- Vitals : HR – 112/min, regular in rhythm, pulse volume good, BP - 90/60 mmHg - Right upper limb, RR – 20/min, SpO₂ - 100% on room air
- SYSTEMIC EXAMINATION :
CVS – S1 S2 heard; RS – NVBS heard, No added sounds; P/A – soft, Epigastric tenderness present, no hepato-spleno-megaly;
CNS – NFND
- Child was started on IV fluids & other supportive measures & was shifted to ward.

ON EVALUATION

Hb- 13.2 g%, TC- 5500 cells/mm³,
DC – N56 L27 M16 E1,
Platelets – 1 lakh /mm,
Coagulation profile / Dengue serology sent, LFT : SGOT-49 IU/L, SGPT-26 IU/L, GGT18 IU/L, ALP-52 IU/L,

Protein - 3.9 g%, albumin - 2.2 g%,
Sr. Bilirubin - 0.4/0.1 mg/dl.
Sr. Creatinine – 0.5 mg/dl.

ON DAY 1 OF ADMISSION

- VITALS : RR-30/min, HR- 168/min, BP- 90/50 mmHg, Pulse volume – good, SpO₂ – 97% on room air
- Child had 3 episodes of melena with hematochezia. FFP transfusion given. Coagulation profile sent was normal. PT – 16 seconds, INR – 1.35, aPTT – 34.2 seconds

ON DAY 2 OF ADMISSION

- Child had another episode of melena. He complained of breathing difficulty & retrosternal chest pain.
- On examination, he had tachycardia with HR - 168/min, Pulse volume – good, BP – 100/70 mmHg, SpO₂ – 94% with O₂. On auscultation – RS clear.
- Child was started on oxygen support and shifted to PICU for further management.

AT PICU

- Child was received in PICU on 17-01-2024 at 7.45am, following



Fig 1: At PICU

which, he had one episode of massive hematemesis.

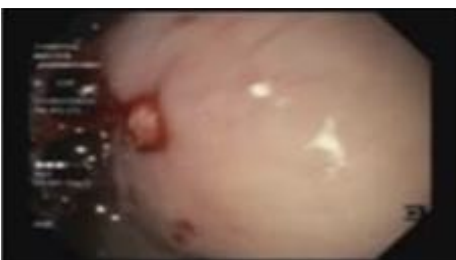
- On evaluation, Severe Pallor +, HR -177/min, SpO₂ - 95% with O₂, BP - 110/100 mmHg, Pulse volume moderate. Child was in compensatory shock.
- NG tube inserted, urinary catheterization done, pantoprazole infusion started, Tranexamic acid given.
- Child was assessed for fluid status. His IVC was thin & collapsible.
- Child was resuscitated with IV fluid boluses.
- Blood samples sent for CBC, blood grouping & typing, cross-matching.
- Child had continuous bouts of hematemesis - (around 870ml). Blood product transfusions done as per Massive Transfusion Protocol.

PROBABLE DIFFERENTIALS

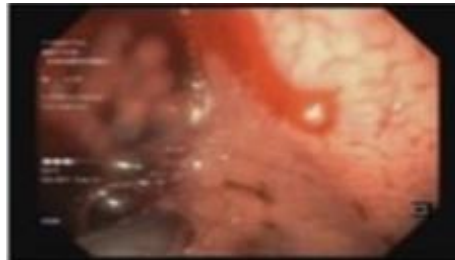
Viral hemorrhagic fever, Factor 13 deficiency, Platelet function disorders, Erosive gastritis, Variceal bleed, Peptic ulcer disease and Vascular malformations.

MGE opinion taken and child was taken up for UGI scopy under GA.

- FINDINGS OF UGI SCOPY - multiple linear ulcers in the body of stomach with active ooze in one of the ulcers in



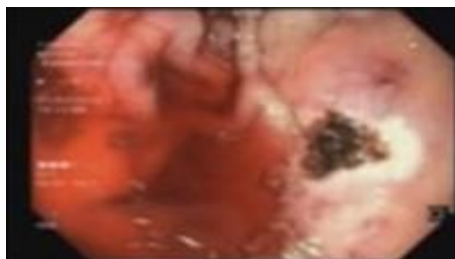
Gastric ulcers



Adrenaline injection done



Heater probe applied



Post procedure

the fundus → ? Viral gastritis. DUAL ENDOTHERAPY done (Inj. Adrenaline injected around the ulcer site followed by thermal coagulation)

DENGUE SEROLOGY reports came out to be IgM and IgG POSITIVE

POST PROCEDURE

Child was shifted to PICU, vitally stable throughout post-op period. No further active bleeding. Child was shifted out to ward after 2 days and discharged. At discharge → Hb - 8.2 g%, platelets - 2.57 lakhs.

DISCUSSION

DENGUE

DENV belongs to Flaviviridae family. Vector - Aedes aegypti and Aedes albopictus. 4 serotypes already known. DENV 5 was isolated in October 2013.

CLASSIFICATION OF DENGUE FEVER

PROBABLE DENGUE FEVER / DENGUE HEMORRHAGIC FEVER

AFI for 2-7 days with 2 or more features

(Headache, retro-orbital pain, myalgia, arthralgia, rash & haemorrhagic manifestations)

(OR) non ELISA based NS1 Antigen / IgM positive

CONFIRMED DENGUE FEVER - Clinical features of dengue fever with at least 1 of the following: -

- Isolation of virus by culture
- NS1 or IgM (+) by ELISA
- 4-fold increase in titer of IgG seroconversion after >2 weeks
- Detecting viral nucleic acid by PCR.

DENGUE WITH WARNING SIGNS

Abdominal pain / tenderness, Persistent vomiting, Clinical fluid accumulation, Mucosal bleeds, Lethargy, restlessness, Liver enlargement >2 cm, Increase in HCT concurrent with rapid decrease in platelet count

SEVERE DENGUE

- Severe plasma leakage leading to shock (DSS), Fluid accumulated with respiratory distress
- Severe bleeding
- Severe organ involvement (Liver, CNS, heart)

PATHOGENESIS OF BLEEDING IN DENGUE FEVER

- Vasculopathy
- Thrombopathy
- Coagulopathy

Other factors that can lead to bleeding include:

- High viral titre
- Macrophage infiltration
- TNF alpha production in local tissues
- Native medication - erosive gastritis

PATHOGENESIS OF VASCULOPATHY

is Multifactorial. The endothelial glycocalyx layer, which lines the luminal surface of micro-vessels and provides vital barrier functions to capillaries, is disrupted by the virus.

PATHOGENESIS OF THROMBOPATHY

- Bone marrow suppression
- Direct infection of the megakaryocytes

- Antibodies against the platelets
- Increased platelet consumption from the interaction between platelets and endothelial cells infected with dengue virus

PATHOGENESIS OF COAGULOPATHY

- Damaged liver → decreased coagulation factor synthesis / increased consumption → altered PT and APTT
- NS1 protein binds to thrombin and prothrombin prothrombin activation

is inhibited → altered APTT occur early before antibodies formed → abnormality in the intrinsic pathway lasting only for few days during the course.

- IL-6 → reduced factor 12 synthesis [first factor to initiate intrinsic pathway]
- Impaired synthesis of factor 2, 5, 7, 8, 9, 10, antithrombin & alpha-2 antiplasmin have been reported in DHF patients

**NON VARICEAL BLEED
ENDOSCOPIC MANAGEMENT**

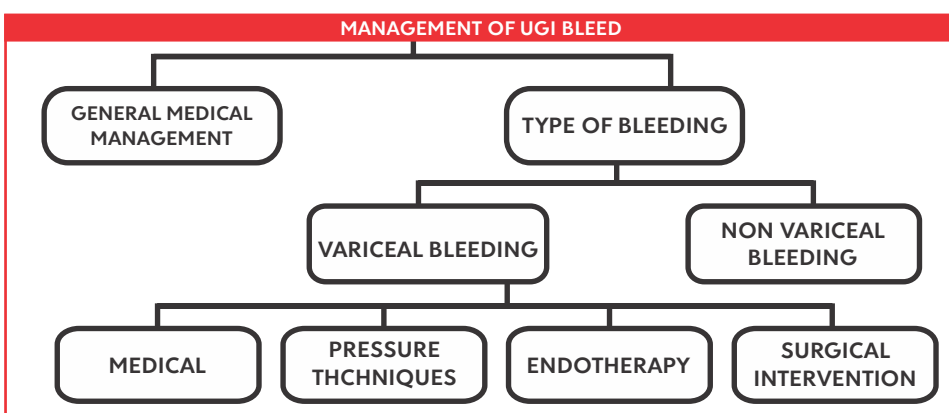
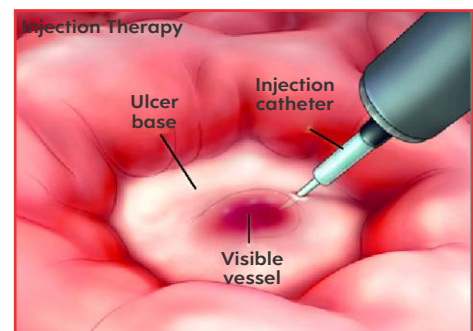
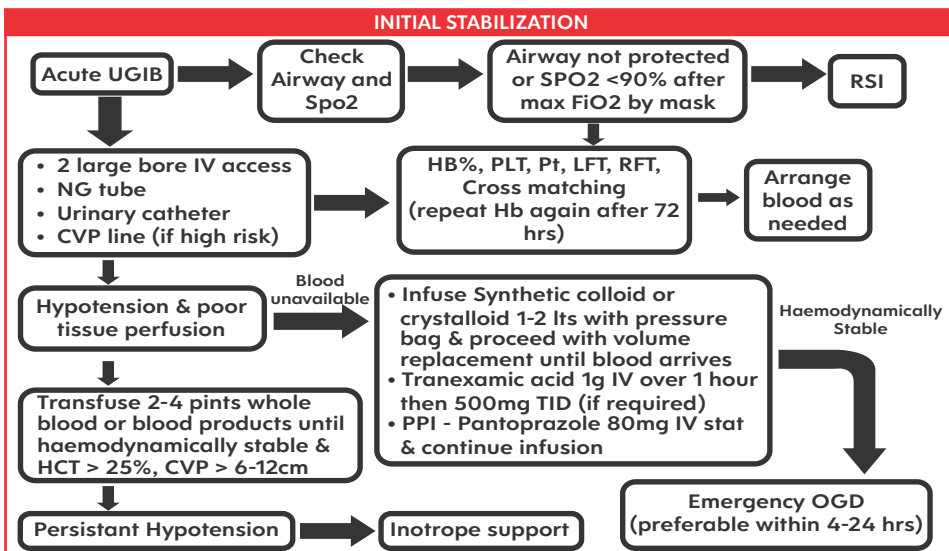
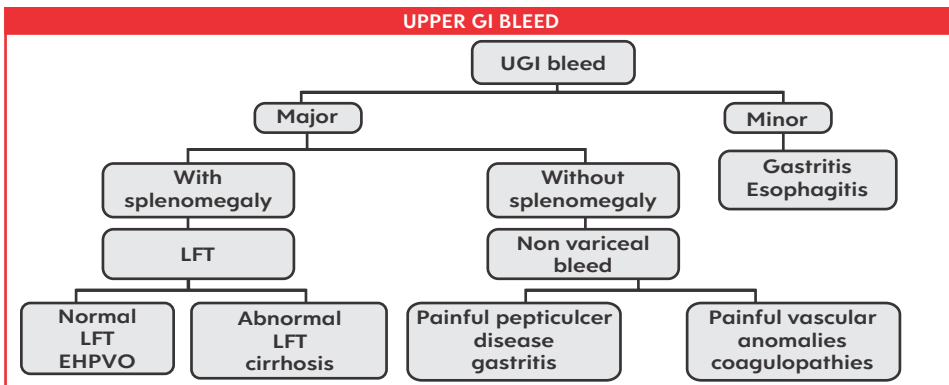
- Inj. Epinephrine
- Haemoclips
- Loop ligation
- Cautery – mono- / bi- polar

OTHERS

- Interventional radiological procedures
- Transcatheteral arterial embolization
- Surgical intervention with/without endoscopy

ENDOSCOPIC MODALITIES

- **INJECTION** – Adrenaline, Fibrin glue, Human Thrombin, Sclerosants, Alcohol.
- **THERMAL** – Heater probe, Bicap Probe, Gold Probe, Argon plasma coagulation, Laser therapy
- **MECHANICAL** – Haemoclips, Banding, Endoloops, Staples, Sutures.



RARE / ATYPICAL COMPLICATIONS OF DENGUE

- GI – bleed (5-30%), Acalculous cholecystitis (2%), fulminant hepatic failure (2%), Appendicitis (2%), Acute pancreatitis (1%), splenomegaly (54%), perforative peritonitis

- Neurological – seizures (17%), encephalopathy (7%), ICH (2%), GBS, ADEM, transverse myelitis
- Cardiac – myocarditis (5%), paroxysmal SVT (3%), pericardial effusion (3%), ectopic ventricular beats, sinus bradycardia (2%)
- Respiratory – pulmonary hemorrhage (4%) with DIC (4%), ARDS (4%), pneumonia (31%), pleural effusion (13%)
- Hemophagocytic syndrome (2%)
- Myositis (3%)

CONCLUSION

- DHF is one of the fatal complications of dengue virus infection, which can ultimately progress to DSS.
- Early recognition via stringent monitoring of vital signs and bleeding manifestations can deter the occurrence of this dreaded complication.

REFERENCES

1. Nelson textbook of pediatrics.
2. IAP – STG.
3. Julius scott – pediatrics.

4. RESEARCH ARTICLE - Coagulation abnormalities in Dengue fever infection : A systematic review and meta- analysis (Tiruneh Adane, Solomon Getawa).
5. Endotherapy for Nonvariceal Upper Gastrointestinal Hemorrhage (Chhagan L. Birda Antriksh Kumar Jayanta Samanta).
6. Update on the management of upper gastrointestinal bleeding (Josh Orpen-Palmer Adrian J Stanely).
7. Dengue Complication in Children (Pande Ayu Naya Kasih Permatananda Warmadewa University).
8. Cause of Upper Gastrointestinal Tract Bleeding in Dengue Hemorrhagic Fever (PatientElzaFebria Sari, Ari Fahrial Syam, Leonard Nainggola).

CME Programme @ SIVAKASI



IMA Sivakasi Branch, Madurai Meenakshi Branch & MMHRC organised a CME programme on 03.03.2024 at Sivakasi.

Speaker : Dr. T. Kasi Viswanathan,

Sr. Consultant - Dept. of Hamatology & Bone Marrow Transplant & Pediatric Hematology - Oncology, MMHRC.

Topic : In 2024, Blood Cancers are curable without Chemotherapy.

Speaker : Dr. PL. Alagammai,

Sr. Consultant, Dept. of Medical Gastroenterology, MMHRC.

Topic : Drug induced Liver injury.

Dr. N. SETHURAMAN ORATION - 2024



The Association of Surgeons of Indai- Madurai City Branch organised "Dr. N. Sethuraman Oration -2024"

on 15.03.2024 at IMA Hall, Madurai. **Speaker : Dr. Srinivasan Ramachandran,**

Sr. Consultant, Dept. of Surgical Gastroenterology & Gastro Intestinal Oncology, MMHRC.

Topic : What Changed in Liver Surgery? in the background of ASI Team.



AGGRESSIVE, UNCOMMON BUT YET CURABLE BRAIN TUMOR

- A RARE CASE DOUBLET

CORRESPONDING AUTHOR :

Dr. KRISHNAKUMAR RATHNAM MD., DM., DNB., FRCP

Sr Consultant & Head

Department of Medical Oncology & BMT

Meenakshi Mission Hospital & Research Centre, Madurai - 625 107.

Phone: 0452 426 3000



Dr. S.V. SAJU

MD., DM.(Med. Onco).,

Consultant

Dept. of Medical Oncology



Dr. A. NANDHAKUMAR

MBBS., DNB(Medicine)

DrNB Resident

Dept. of Medical Oncology

INTRODUCTION

Primary central nervous system lymphoma (PCNSL) is a subtype of non-Hodgkin lymphoma (NHL) restricted to the brain, spinal cord, cerebrospinal fluid (CSF), and/or eyes. PCNSL is a rare primary brain cancer accounting for 2 percent of all brain tumours and 4 to 6 percent of non-Hodgkin lymphomas (NHLs). The estimated incidence rate is 0.45 per 100,000 populations. It is more common in immunocompromised individuals. This manuscript focuses on the evaluation and treatment of this rare malignancy in immunocompetent individuals.

CASE 1

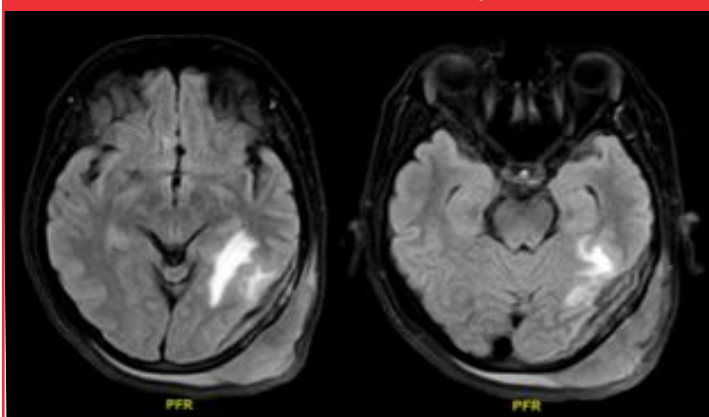
A 40 year old female from Dindigul presented with complaints of swelling of left parieto occipital region x 3 months. There was no headache, vomiting, seizures, Focal Neurological deficit and visual symptoms. Contrast MRI Brain was suggestive of Metastasis. Screening with whole body MRI was suggestive of no evidence of primary disease. Patient was referred to neurosurgery. She underwent Left occipital craniotomy and gross total excision of SOL. Post OP CT was suggestive of No residual disease/resolving disease. Post op HPE s/o Lymphoma. IHC was suggestive of DLBCL. Block review at central lab report turns

out to be DLBCL-GCB type. She was started on R-MPV regimen. Post 5 cycles of R-MPV, reassessment MRI Brain was Normal following which patient received consolidated RT: 23.5 Gy/13#. Patient has completed maintenance chemotherapy with Cytarabine and currently she is on follow up.

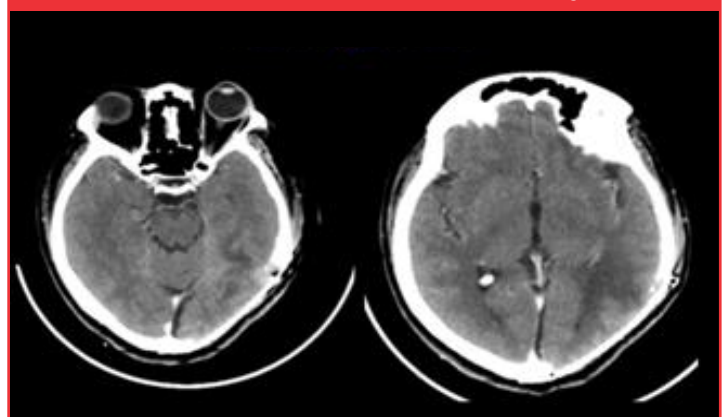
CASE 2

A 50 year old male was evaluated outside with complaints of severe intermittent headache and visual disturbance. MRI Brain showed ill defined and heterogeneously enhancing mass lesion which is centered around the left choroid plexus, involving posterior horn of left

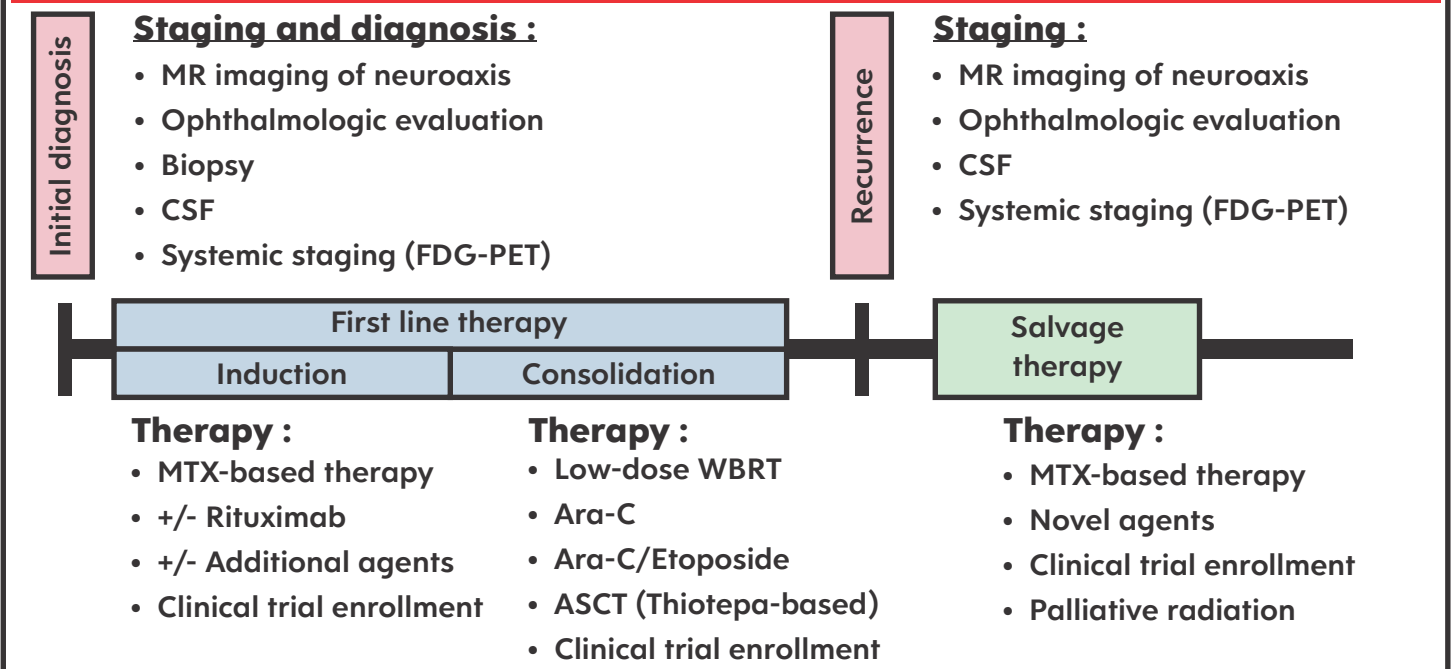
Case 1 - PREOP MRI brain of the patient



Case 1 - POST OP CT : No residual disease / resolving edema



MANAGEMENT ALGORITHM OF PCNSL



lateral ventricular margins and left parahippocampal gyrus and surrounding perilesional edema causing mass effect over left sided basal ganglia, thalamus, lateral ventricle and midline shift 9mm. There is also mass effect over left side of midbrain and associated mild uncal herniation. He underwent left parieto-temporal craniotomy and excision of the tumour. Post op HPE revealed high grade lymphoma. Custom IHC showed diffuse large B cell lymphoma, non germinal center B-cell type. And he was diagnosed as Primary CNS lymphoma and was started on RMPV regimen. Patient had completed his 5 cycles of RMPV regimen. Post chemo MRI brain was showing complete response. And currently he is on maintenance Cytarabine.

DISCUSSION

PCNSL is a subtype of non-Hodgkin lymphoma (NHL) restricted to the brain, spinal cord, cerebrospinal fluid (CSF), and / or eyes. It is more common only in "immunocompromised" individuals and associated with EBV and HIV infection. HIV increases the risk of PCNSL by 3600 fold. It is rare in immunocompetent individuals. The most common histology

of PCNSL Diffuse Large B cell Lymphoma - ABC TYPE (96%). Our two cases have the rarest of presentation- occurring in immunocompetent individuals and the histology of our 1st case being DLBCL-GCB type. Diagnostic of choice for PCNSL is Stereotactic Biopsy / Surgical excision. Risk of relapse is high if not treated with proper CNS directed therapies.

High Dose MTX based Induction Regimens are R-MPV, MTR - A, MATRIX, R-MBVPA. Consolidation with WBRT carries the risk of increased neurotoxicity, worse in older patients with higher doses especially when given following High dose MTX. R-MPV protocol offers advantage of tailoring down the dose of WBRT if good response to chemotherapy thus decreasing the toxicity.

CONCLUSION

Primary central nervous system lymphoma (PCNSL) as a whole is a rare Non Hodgkin lymphoma (NHL). And very few cases were reported in immunocompetent individuals. By proper evaluation, it can be diagnosed at early stage. Prognosis is poor when treated with conventional regimens like CHOP. With High dose methotrexate based

regimens, survival has improved in the last 1 decade and the treatment involves induction chemotherapy with RMPV regimen to achieve disease remission followed by consolidation to prevent relapse. Consolidation can be done by radiotherapy or chemotherapy alone or Transplant. Response adapted dosing of cranial RT decreases late neurotoxicity.

REFERENCES

- Kluin, P. M., Deckert, M. & Ferry, J. A. In WHO Classification of Tumours of Haematopoietic and Lymphoid Tissues 300-302 (IARC, 2017).
- Alaggio, R. et al. The 5th edition of the World Health Organization Classification of Haematolymphoid Tumours: Lymphoid Neoplasms. *Leukemia* 36, 1720-1748 (2022)
- Shiels, M. S. et al. Trends in primary central nervous system lymphoma incidence and survival in the U.S. *Br. J. Haematol.* 174, 417-424 (2016).
- Morris, P. G. et al. Rituximab, methotrexate, procarbazine, and vincristine followed by consolidation reduced-dose whole-brain radiotherapy and cytarabine in newly diagnosed primary CNS lymphoma: final results and long-term outcome. *J. Clin. Oncol.* 31, 3971-3979 (2013).
- Ferreri, A. J. & Illerhaus, G. The role of autologous stem cell transplantation in primary central nervous system lymphoma. *Blood* 127, 1642-1649 (2016).
- Schorb, E. et al. High-dose chemotherapy and autologous stem cell transplant compared with conventional chemotherapy for consolidation in newly diagnosed primary CNS lymphoma - a randomized phase III trial (MATRIX). *BMC Cancer* 16, 282 (2016).



STRESS ULCER PROPHYLAXIS IN ICU

CORRESPONDING AUTHOR :

Dr. KARTHIK RAM MD., DM.,

Consultant - Critical Care Medicine & Toxicology

Meenakshi Mission Hospital & Research Centre, Madurai - 625 107.

Phone: 0452 426 3000 | Mobile: 88702 49190.



Dr. K.S. ANAND M.D.(Anes),

Sr. Consultant & HOD,

Dept. of Critical Care Medicine & Toxicology

INTRODUCTION

Haemorrhage from the upper gastrointestinal tract (esophagus, stomach or duodenum) is defined as primary when it is the cause of hospital admission and is defined as secondary when it complicates the hospital course for patients who have been admitted for other reasons. Patients with secondary upper gastrointestinal bleeding are generally older, more seriously ill and more likely to have coexisting conditions such as cardiopulmonary disease or chronic renal failure as compared with patients who have primary bleeding.

Stress ulcer is defined as ulceration of upper GI tract (esophagus, stomach, and duodenum) that occurs due to hospitalization. It usually occurs in the fundus and body of the stomach.

SUBCLASSIFICATION

Asymptomatic -ulceration without bleed (>75%)

Stress ulceration with occult bleed (15-50%)

Stress ulceration with overt bleed - Hematemesis, malena, altered blood in nasogastric tube(1.5 -8.5%).

CLINICALLY SIGNIFICANT BLEED IS DEFINED AS OVERT BLEEDING PLUS ONE OF THE FOLLOWING

Decrease in systolic or diastolic BP > 20mmhg within 24 hrs before or after bleeding.

Orthostatic increase in pulse >20 beats per minute

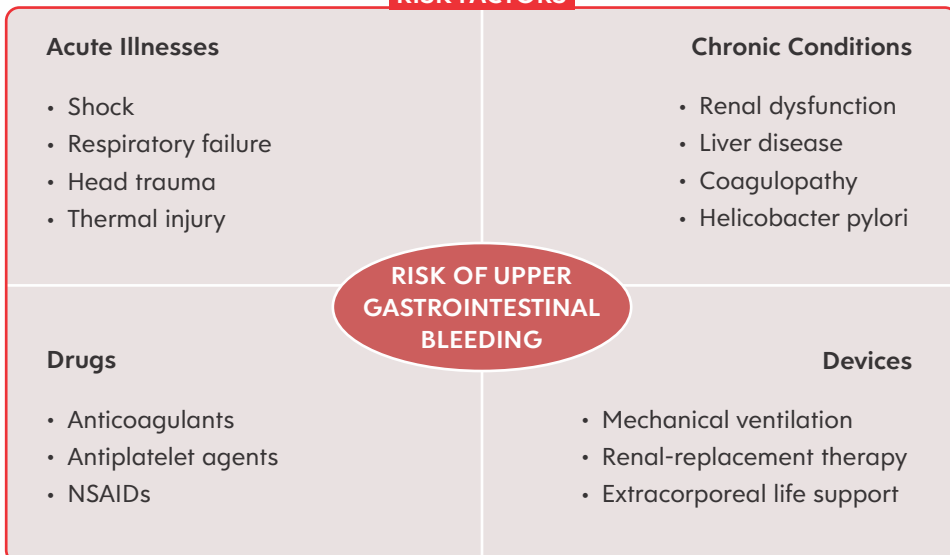
Decrease in Hb >2g/dl over 24 hrs or transfusion of >2units pack red cells within 24 hrs after bleeding.

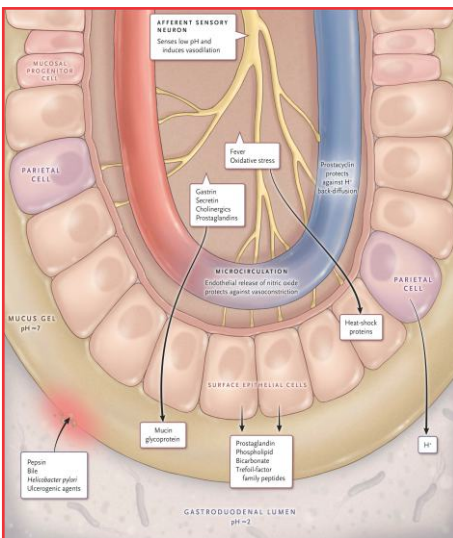
Need for vasopressor support and or endoscopic intervention.

PATHOPHYSIOLOGY

A layer of alkaline mucus gel is a key feature of gastroduodenal mucosal defense. Beneath this lining are surface epithelial cells that secrete mucus, bicarbonate, prostaglandins, and other protective factors. These surface epithelial cells are regenerated by mucosal progenitor cells. The underlying capillary microcirculation provides oxygen and produces prostaglandins and nitric oxide. Multiple acid sensors monitor extracellular pH, potentially triggering

RISK FACTORS





diminished gastrin production and reduced acid output. In seriously ill patients, proinflammatory states, splanchnic hypoperfusion, and impaired microcirculation due to conditions such as hypovolemia, low cardiac output, or shock can induce ischemia, reperfusion injury, and low gastric intramucosal pH. These factors can converge to impair the integrity of the mucosal lining causing unchecked gastric acidity. Gastric acid is often considered to precipitate, perpetuate, or be a predisposing factor in gastrointestinal bleeding in hospitalized patients; however, disruption of the mucosal barrier may be the most salient factor in the genesis of such bleeding

There is growing concern that the adverse effects of acid suppression may predispose patients to nosocomial infections, which are more common and are associated with higher morbidity, mortality and costs than the bleeding that acid suppression is prescribed to prevent. Evidence linking infections and acid suppression is mounting, with the association potentially mediated through modification of the gastrointestinal microbiome exacerbating the dysbiosis that characterizes critical illness.

For critically ill patients who are able to receive enteral medications and in whom stress ulcer prophylaxis is indicated, proton pump inhibitor (PPI) is preferred rather than an alternative prophylactic

agent (eg. H2 blockers, sucralfate or antacids).

This preference is based upon randomized trials and meta-analyses which report that PPIs are more effective than other agents. Rarely; sucralfate is a suitable oral alternative in conditions where PPIs or H2 blocker is contraindicated.

Krag M et al, studied 1,034 patients in 97 ICUs, where 73% (71-76%) of patients received acid suppressants; most received PPIs. Clinically important GI bleeding occurred in 2.6% of patients and the use of acid suppressants (odds ratio 3.6, 1.3-10.2) was independently associated with it. In patients with clinically significant GI bleed, crude and adjusted odds for mortality were 3.7 (1.7-8.0) and 1.7 (0.7-4.3), respectively⁽²⁾.

PEPTIC TRIAL

Paul J. Young et al conducted a randomized clinical trial to assess the Efficacy of effect of stress ulcer prophylaxis with proton pump inhibitors vs Histamine-2 Receptor Blockers on In-Hospital Mortality among ICU patients receiving invasive mechanical ventilation.

Patients requiring invasive mechanical ventilation within 24 hours of ICU admission were followed up for 90 days at the hospital. The conclusion of the study was that among ICU patients requiring mechanical ventilation, a strategy of stress ulcer prophylaxis with use of proton pump inhibitors vs histamine-2 receptor blockers resulted in hospital mortality rates of 18.3% vs 17.5%, respectively, a difference that did not reach the significance threshold. Similarly there was no increase in the incidence of Clostridioides difficile infection between PPIs and H2 blockers (0.3% vs. 0.43%)⁽³⁾.

In a 2018 meta-analysis of 18 studies (1636 critically ill patients), that did not include SUP-ICU study, PPI use had no impact on the rate of ventilator associated pneumonia compared with H2 blockers⁽⁴⁾.

A randomized trial of 1200 mechanically ventilated patients reported similar rates of ventilator-associated pneumonia when an intravenous H2 blocker was compared with sucralfate (19 versus 16 percent; RR 1.18, 95% CI 0.92-1.51)⁽⁵⁾.

The impact of enteral nutrition on the risk of bleeding is also unclear. While some data suggest that enteral nutrition decreases the risk of bleeding other data suggest that the administration of prophylaxis in those who are being enterally fed may be ineffective or possibly harmful when enteral feeding is administered simultaneously with GI prophylaxis. However, many of these studies are fundamentally flawed and further study is required before firm conclusions can be made regarding enteral nutrition and the risk of bleeding from stress ulceration.

REFERENCES

1. Cook D, Guyatt G. Prophylaxis against upper gastrointestinal bleeding in hospitalized patients. *New England Journal of Medicine*. 2018 Jun 28;378(26):2506-16.
2. Krag M, Marker S, Perner A, Wetterslev J, Wise MP, Scheffold JC, Keus F, Guttormsen AB, Bendel S, Borthwick M, Lange T. Pantoprazole in patients at risk for gastrointestinal bleeding in the ICU. *New England Journal of Medicine*. 2018 Dec 6;379(23):2199-208.
3. Young PJ, Bagshaw SM, Forbes AB, Nichol AD, Wright SE, Bailey M, Bellomo R, Beasley R, Brickell K, Eastwood GM, Gattas DJ. Effect of stress ulcer prophylaxis with proton pump inhibitors vs histamine-2 receptor blockers on in-hospital mortality among ICU patients receiving invasive mechanical ventilation: the PEPTIC randomized clinical trial. *Jama*. 2020 Feb 18;323(7):616-26.
4. Toews I, George AT, Peter JV, Kirubakaran R, Fontes LE, Ezekiel JP, Meerpohl JJ. Interventions for preventing upper gastrointestinal bleeding in people admitted to intensive care units. *Cochrane Database of Systematic Reviews*. 2018(6).
5. Cook D, Guyatt G, Marshall J, Leasa D, Fuller H, Hall R, Peters S, Rutledge F, Griffith L, McLellan A, Wood G. A comparison of sucralfate and ranitidine for the prevention of upper gastrointestinal bleeding in patients requiring mechanical ventilation. *New England Journal of Medicine*. 1998 Mar 19;338(12):791-7.



KNOW YOUR DRUG TO KILL THE BUG

- ID CORNER

CORRESPONDING AUTHOR :

Dr. MALATHI MURUGESAN MD(Micro)., DTM&H (RCP London),
Associate Consultant, Dept. of Infectious Diseases
& Hospital Infection Control Officer
Meenakshi Mission Hospital & Research Centre, Madurai - 625 107.
Phone: 0452 426 3000 | Mobile: 84384 77228



Dr. K. KARTHIKEYAN Pharm.D.,
Clinical Pharmacist

Piperacillin-tazobactam is a β -lactam / β -lactamase inhibitor combination with a broad spectrum of antibacterial activity that includes Gram-positive and Gram

negative aerobic and anaerobic bacteria. Piperacillin-tazobactam retains its in vitro activity against broad-spectrum β -lactamase-producing and some

extended-spectrum β -lactamase-producing Enterobacteriaceae, but not against isolates of Gram-negative bacilli harboring AmpC β -lactamases⁽¹⁾.

GENERIC NAME	PIPERACILLIN TAZOBACTAM
Indications	Bloodstream infection, Urinary tract infection, Cystic fibrosis, acute pulmonary exacerbation, Diabetic foot infection, Malignant external otitis, Intra-abdominal infection, Pneumonia Prosthetic joint infection, Sepsis/septic shock, Skin and soft tissue infection, Neutropenic fever, Bite wound infection.
Spectrum of action	Pseudomonas aeruginosa, Enterobacteriaceae, Bacteroides fragilis, Propionibacterium spp, Enterococcus species, Streptococcus pyogenes, Streptococcus pneumoniae, Acinetobacter lwoffii, Proteus mirabilis, Hemophilus influenzae, Moraxella catarrhalis, Clostridium spp.
Intrinsic Resistance	Stenotrophomonas maltophilia
Dosage (2)	<p>Adult: IV Peritonitis, Intra-abdominal abscess 4.5 gm IV Q8H</p> <p>Pneumonia (Pseudomonas) 4.5 gm IV Q6H</p> <p>(Even if combined with an anti-pseudomonal aminoglycoside or fluoroquinolone - give 4.5 gm IV Q6H)</p> <p>Pediatrics: IV 240 to 300 mg piperacillin/kg/day in divided doses every 6 to 8 hours; maximum daily dose: 16 g/day</p>

GENERIC NAME	PIPERACILLIN TAZOBACTAM		
Renal dose adjustment		Traditional infusion method (over 30 minutes)	
	CrCl (mL/ minute)	If the usual recommended dose is 3.375 g every 6 hours	If the usual recommended dose is 4.5 g every 6 hours
	100 to <130	Extended infusion preferred	Extended infusion preferred
	40 to <100 (usual recommended dose)	3.375 g every 6 hours	4.5 g every 6 hours
	20 to <40	2.25 g every 6 hours	4.5 g every 8 hours or 3.375 g every 6 hours
	<20	2.25 g every 8 hour	4.5 g every 12 hours or 2.25 g every 6 hours
Storage	Use single-dose or bulk vials immediately after reconstitution. Discard any unused portion after 48 hours if stored at 2°C to 8°C. Do not freeze vials after reconstitution.		
Incompatibility	Acyclovir, Amphotericin B, Ciprofloxacin, Caspofungin acetate, Daunorubicin, Doxorubicin, Doxycycline hyclate, Ganciclovir sodium, Levofloxacin, Polymyxin B, Propranolol, pantoprazole, salbutamol, tranexamic acid.		
Administration	Administer by IV infusion over 30 minutes. For extended infusion administration, administer over 3 or 4 hours. For continuous infusion method, administer total dose (18 g) over 24 hours as a continuous infusion.		
Adverse Drug Reaction	Drug-induced immune thrombocytopenia., Myelosuppression, Delayed hypersensitivity reactions, nephrotoxicity, Neurotoxicity.		
Drug interactions	Vancomycin, Aminoglycosides, Tetracyclines, Vitamin K Antagonists.		
Special notes	Distribution: Well into lungs, intestinal mucosa, uterus, ovary, fallopian tube, interstitial fluid, gallbladder, and bile.		

REFERENCES

1. Gin A, Dilay L, Karlowsky JA, Walkty A, Rubinstein E, Zhanel GG. Piperacillin-tazobactam: a beta-lactam/beta-lactamase

inhibitor combination. Expert Rev Anti Infect Ther. 2007 Jun;5(3):365-83.
2. Stanford Antimicrobial Safety & Sustainability Program [Internet]. [cited 2024 Mar 15].

Antimicrobial Guidebook. Available from: <https://med.stanford.edu/bugsanddrugs/guidebook.html>.

CME Programme @ BATLAGUNDU



IMA Batlagundu Branch, Madurai Meenakshi Branch & MMHRC organised a CME programme on 21.03.2024 at Batlagundu.

Speaker : **Dr. K. Selvamuthukumaran**,
Sr. Consultant - Dept. of Neuro Surgery, MMHRC.
Topic : MINIMALLY INVASIVE NEURO SURGERY.

Speaker : **Dr. K. Gowtham Kuncha**,
Consultant, Dept. of Neuro Surgery, MMHRC.
Topic : Updates in Endovascular Neuro Intervention.

REVISIONAL ENDO BARIATRICS



NO SURGERY BUT
BACK TO THE PAST NOW POSSIBLE



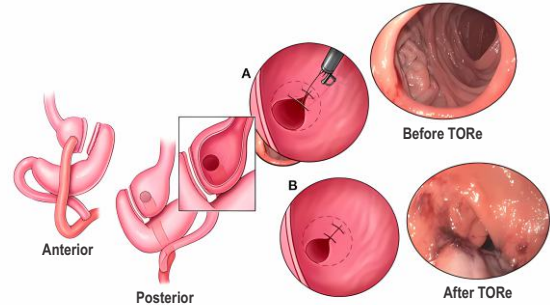
MEENAKSHI MISSION
HOSPITAL & RESEARCH CENTRE
MADURAI | TAMIL NADU



**Trans Oral Outlet
Reduction (TORe)
done @ MMHRC**



**TORe done using Apollo Endosurgery
overstitch Suturing System**



TORe Indications.

Post RYGB Weight Regain due to

- Increased Gastric Pouch Volume
- Increased Gastric Pouch - Jejunostomy (Outlet) Size

ADVANTAGES

- No Incision
- No Scars
- 100% Pain free
- Purely an Endoscopic Procedure
- Non - Surgical
- Weight loss therapy for Post RYGB Weight Regain

For further details contact :
Dr. S.JEGADESH CHANDRA BOSE



M.Ch(Surg Gastro), FACS(USA),
Fellowship in Bariatric Surgery.,
FICRS (Robotic Surgery),
Senior Consultant,
Robotic G.I. & Endo-Bariatric Surgeon,
Laparoscopic & Robotic Diabetes Surgeon,
Obesity & Diabetes Surgery Clinic,
Ph : 0452-258874, 4263000. Extn. : 3459

 www.meenakshilabs.com

**SOUTH
TAMILNADU'S
LARGEST REFERRAL
LABORATORY WITH
HIGHEST NABL
SCOPE (TEST).**





Quick Turn around Time:
Reports within 3 Hrs

- ▶ Dengue NS1
- ▶ Acute Hepatitis Profile
- ▶ Dengue IgG
- ▶ Chronic Hepatitis Profile
- ▶ Dengue IgM
- ▶ ToRCH Panel


Now Upgraded Technology:
Fully Automated CLIA Technology

HOME COLLECTION FACILITY


73732 73732



**Quick
Service**



**World-class
Technology**



**Accurate
Results**

BRANCHES :

MADURAI | TANJORE | RAJAPALAYAM | KARAIKUDI | MAYILADUTHURAI | KUMBAKONAM | PUDUKKOTTAI | THENI

**FREE CORRECTIVE OPERATION FOR
CLEFT LIP & PALATE @**





with support of



For FREE Cleft Lip / Palate Surgery
Contact 0452 4263000



BELOW 40 YEARS OF AGE GROUP OF ANY CATEGORY

WE HAVE PERFORMED 14,066 OPERATIONS SUCCESSFULLY SO FAR...

FREE SURGERY MEDICINE ACCOMMODATION AND FOOD

REGD. NEWS PAPER

TO

IF UNDELIVERED PLEASE RETURN TO
MARKETING DEPARTMENT



Lake area, Melur Road, Madurai - 625107, Tamil Nadu, India.
 P. 0091-452-2588741 (10 Lines) 0091-452-4263000 F. 258 6353.