26th Annual State Conference 2024

organised by

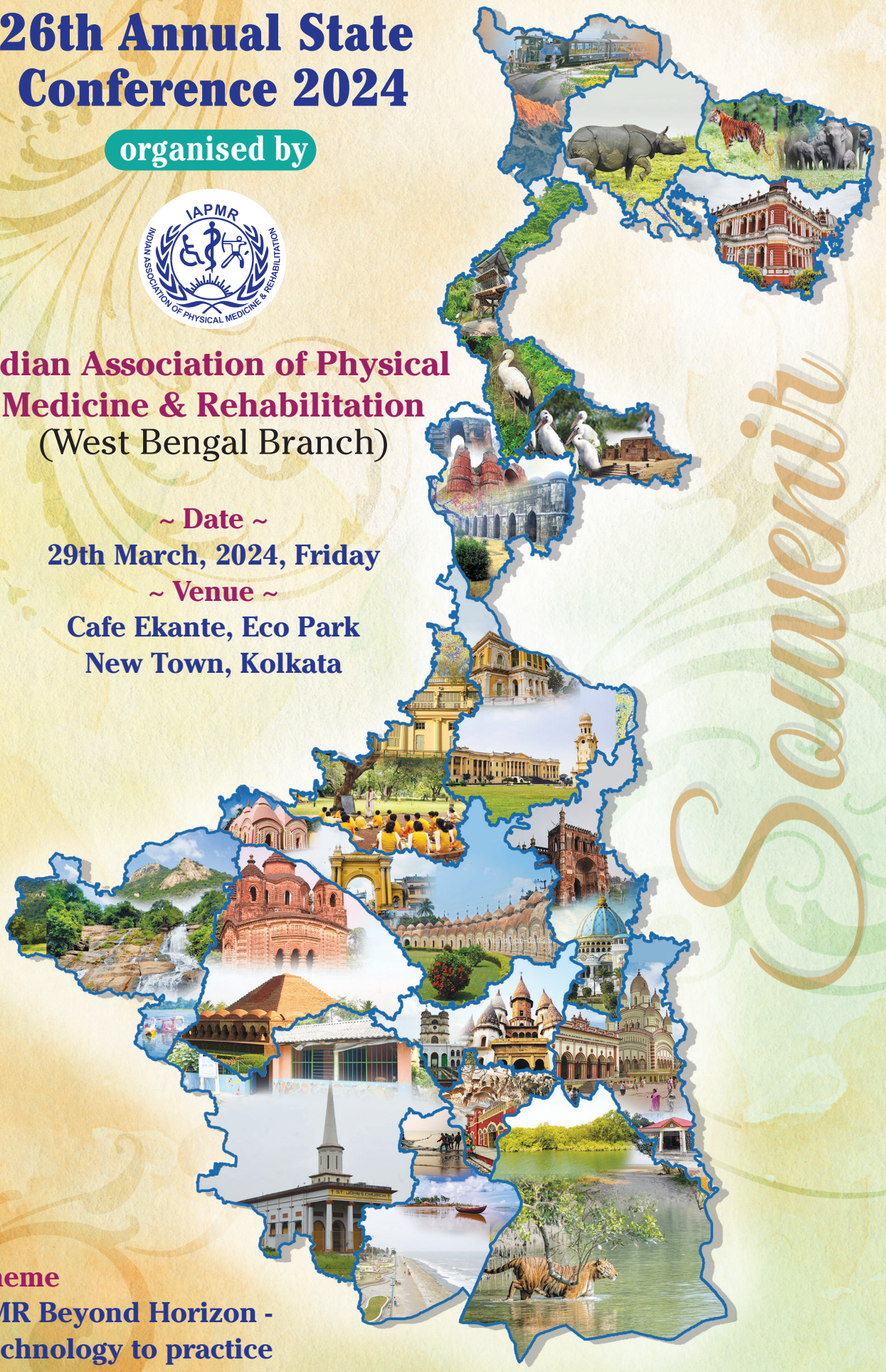
Indian Association of Physical Medicine & Rehabilitation
(West Bengal Branch)

~ Date ~

29th March, 2024, Friday

~ Venue ~

Cafe Ekante, Eco Park
New Town, Kolkata



Souvenir

Theme

PMR Beyond Horizon -
Technology to practice

INSIDE COVER
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26th

Annual State Conference 2024

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Indian Association of Physical Medicine & Rehabilitation

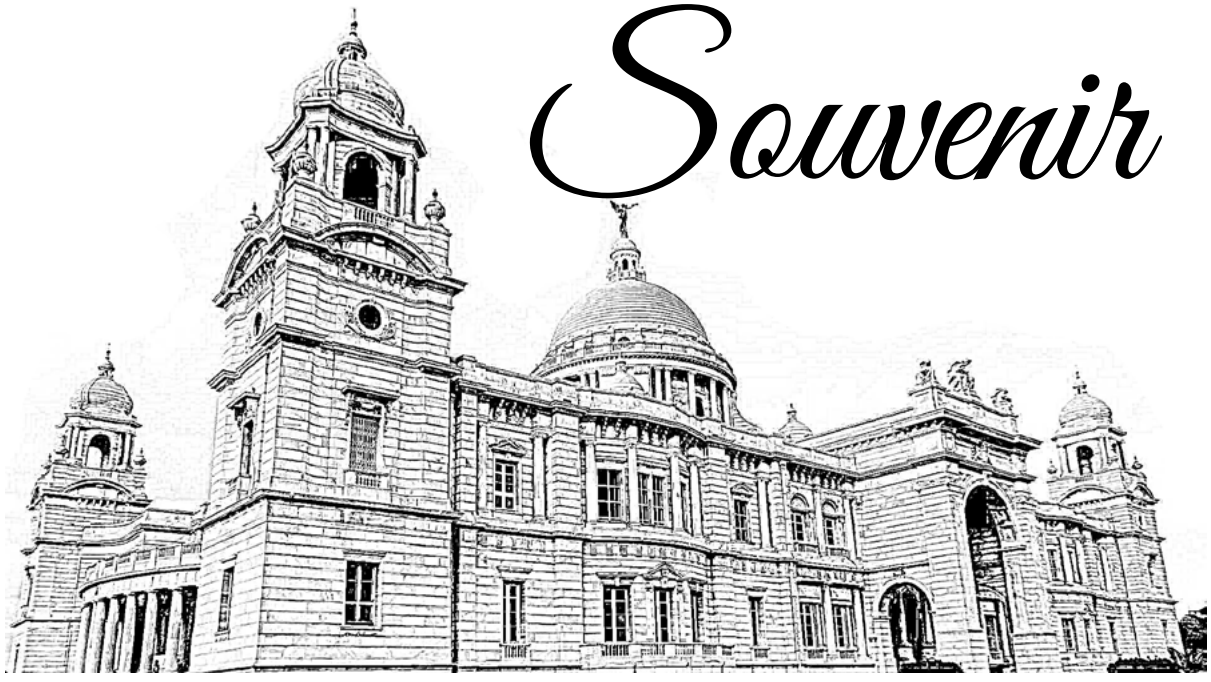
(West Bengal Branch)

29th March, 2024, Friday

Cafe Ekante, Eco Park, New Town, Kolkata

Theme

PMR Beyond Horizon - Technology to practice



Souvenir

Message

Message 1

Message 2

Message 3



Message from

Secretary

Indian Association of Physical Medicine and Rehabilitation

Greetings from the Indian Association of Physical Medicine and Rehabilitation!!

It gives me immense pleasure and joy that the Department of Physical Medicine & Rehabilitation,PSG Institute of Medical Sciences & Research, Coimbatore is organising the **26th Annual State Conference 2024** of the Indian Association of Physical Medicine & Rehabilitation (West Bengal Branch). The conference will be held on **29th March, 2024** with two pre conference workshops on 28th March at **IPGME&R & NRS MCH,Kolkata**. On behalf of IAPMR, I wish them all the very best. We all are all looking forward to this wonderful scientific event. I am confident that it will be a huge success and a watershed moment in the history of IAPMR (WB Chapter). On behalf of IAPMR, I assure the organising committee of all the support from the national body and also urge all the members across the country and abroad to attend this academic feast. The Secretary WB Chapter Dr Dilip Khatua left no stone unturned to make it the most memorable event under the guidance of president Dr Abhishek Buswas. I congratulate the WB Chapter of IAPMR and entire team of WBPMRCON 2024.

I welcome all the participants to this unique event. The conference theme **PMR Beyond Horizon Technology to Practice**, has been carefully chosen to mark this milestone more memorable and relevant and is very apt keeping in mind the current scenario and also the need of the hour. It has wonderful topics, including recent advances in the field of medical and surgical rehabilitation. There are one day of fully subscribed pre-conference workshops with delegates from across the country eagerly waiting to attend, which indicates the hunger for knowledge and learning new skills.

I would invite everyone to this special and unique Conference to join in large numbers to make this a successful event.

Wishing all the very best for a successful event to the organisers.

Long Live IAPMR Jai Hind!!

Dr Sanjay Kumar Pandey
Secretary
AIPMR



Message from

President
AIPMR, WB Chapter

It is a moment of honor and privilege to address as the President of Indian Association of Physical Medicine and Rehabilitation, West Bengal chapter, an esteemed Association.

I express my heartfelt gratitude for the trust and confidence you have placed in me to lead this Association for last few years.

I, welcome you all in 26th Annual State Conference 2024 at Kolkata on 29th March 2024.
The theme chosen for this year's conference is very topical and inspiring.

The inclusion of modern cutting edge technology will greatly enhance the scope of PMR and allow it to reach new heights and engage in new forms of treatment.

I hope this conference will offer our members, participants a wonderful chance to experience a truly exceptional program.

My best wishes for the success of the conference.

Dr Abhishek Biswas
President
AIPMR, WB Chapter



Message from

Secretary
AIPMR, WB Chapter

Dear Esteemed Delegates,

I am delighted to welcome you all to this 26th Annual State Conference of IAPMR WB Branch at Café Ekante, Ecopark, New Town, Kolkata on 29th March 2024. I extend my warmest greetings to all speakers, chairpersons, delegates, guests and family members.

This time organising committee arranged 3 preconference workshops, which is a new extent to our state conference. These workshops surely enriched the knowledge and skills of the attendees. One of these 3 workshops, the "Analysis of Gait" will be covered by Prof. Suranjan Bhattacharji, a living legend in the field of PMR. This is really a prestigious matter for IAPMR WB Branch. I heartily welcome Prof Bhattacharji and his team to this workshop and conference.

The Theme the conference, "PMR Beyond Horizon- Technology to Practice" encapsulates the spirit of learning of newer techniques. I am confident that this conference will engage us with thought provoking discussions, share research experiences and meaningful connections within the delegates.

I extend my heartfelt gratitude to the organising committee, whose dedication and planning have shape this conference into a distinguished event. I am also thankful to the pharmaceutical companies who have participated actively in this CME.

I wish the conference a great success.

Long live IAPMR

Long live IAPMR WB Branch

Dr Dilip Kumar Khatua
Secretary
AIPMR, WB Chapter



Message from

Chairman: Academic Committee
26th Annual State Conference 2024

Message here

Dr Rajesh Pramanik
Chairman: Academic Committee
26th Annual State Conference 2024

WEST BENGAL MEDICAL COUNCIL
IB-196, SECTOR-III, SALT LAKE, KOLKATA - 700106
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Visit us at www.wbmc.in

No. 0092 -C/28-2012 Date 18 March 2024

Dr. P K Mallick
+91 84207 38734

Prof.Dr. Rajesh Pramanik
Organizing Chairman
INDIAN ASSOCIATION OF PHYSICAL MEDICINE & REHABILITATION *(WEST BENGAL CHAPTER)*
Dept. of P M & R, PO : Kenduadihi,
BANKURA– 722102

914

Sir,

Sub: Accreditation of CME Hours of the programme of your Organization held on 29th MARCH 2024(1 Day)

In response to your letter dated **12/03/2024** along with programme schedule for your CME Programme **"26th ANNUAL STATE CONFERENCE 2024 "** to be held on **29th MARCH 2024,** I am directed to inform you that the Council has approved Accreditation **of CME Hours → 04 Hours.**

You are requested to comply with the following: -

[1] You will have to deposit Rs. 100/- per delegate per day of CME to the Council by means of cheque favouring West Bengal Medical Council prior to holding of the conference. The payment may also be made in cash and the same should be deposited within 2:30 PM on any working day. No refund will be made for unused certificates.

[2] You will have to prepare & print the certificates, as per proforma enclosed after getting it approved by the Council. The printed certificates with printed serial number as per estimated delegates, will have to be handed over to this office for getting those signed by the authorized signatory of the Council well in advance of holding of the conference. **SYMBOL / LOGO OF THE ORGANIZATION ONLY BE USED IN THE CME CERTIFICATE.**

[3] After completion of the conference, total course content, programme in digital form along with Xerox copy of attendance of delegates and faculty members to be furnished to this council.

[4] West Bengal Medical Council **has not formed any guideline for sanction of CME hours to the Faculty Members** attending the conference till date. Only Delegates are eligible for Credit Hours.

[5] **Foreign Faculties,** attending Surgical Workshop without temporary permission of Medical Council of India, are not permissible. But foreign faculties as lecturers / speakers in the Conference need not to have such permission.

[6] It is mandatory to include deliberation on Medical Ethics not less than 30 Minutes in order to be eligible for credit hours.

Name of the council member(s), who will attend the conference, will be intimated to you in due course.

Thanking you,

Yours faithfully,
15.3.24

(Manas Chakraborti)
Registrar
West Bengal Medical Council

Encl : Proforma Certificate

Executive Committee 2022-2024

President	Dr Abhishek Biswas
Vice President	Dr Ameed Equebal
Hony Secretary	Dr Dilip Kumar Khatua
Asst Secretary	Dr Premesh Sarkar
Treasurer	Dr Firdaus Kamal
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	Dr Ushnish Mukherjee
Chairman: Academic Committee	Dr Rajesh Pramanik
Immediate Past President	Dr Asim Kumar Palit
Immediate Past Secretary	Dr Jayanta Saha
Advisors	Dr B K Choudhury
	Dr M M Biswas
	Dr R N Haldar

Past Committees of IAPMR WB Branch

Year	President	Secretary	Treasurer
1980-1985	Dr Sudhir Kumar Banerjee	Dr Nanigopal Sarkar	
1985-1990	Dr Sudhir Kumar Banerjee	Dr Nanigopal Sarkar	Dr C R Gupta
1990-1992	Dr Debapriya Banerjee	Dr B K Choudhury	Dr B N Dutta
1992-1994	Dr P K Mallick	Dr S P Sinha	Dr S K Basu
1994-1997	Dr Nanigopal Sarkar	Dr S P Sinha	Dr S K Basu
1997-2003	Dr P K Bagchi	Dr R N Haldar	Dr S K Basu
2003-2007	Dr B K Choudhury	Dr R N Haldar	Dr R N Haldar
2007-2009	Dr Ambar Ballav	Dr S P Sinha	Dr R N Haldar
2009-2011	Dr M M Biswas	Dr Saumyajit Guha	Dr R N Haldar
2011-2013			
2013-2015	Dr R N Haldar	Dr Asim Palit	
2015-2017	Dr Soumyajit Guha	Dr Jayanta Saha	
2018-2020	Dr Asim Palit	Dr Jayanta Saha	
2020-2022	Dr Abhishek Biswas	Dr Dilip Kumar Khatua	Dr Firdaus Kamal

Program schedule of 26th Annual State Conference of IAPMR (West Bengal Chapter)

29.03.2024 • Cafe Ekante, Eco Park, Kolkata

Theme: PMR Beyond Horizon: Technology To Practice

1st workshop on Musculoskeletal USG on 21.03.24 at NRS Medical College, by Prof. (Dr.) Partha Pratim Das, HOD, Dept. of PMR, NRSMC.

2nd and 3rd workshop on 28.03.24 at IPGME & R, SSKM Hospital on (9 am – 12 pm & 1 pm – 4pm)

1. **Gait analysis workshopby**
   Prof. (Dr). Suranjan Bhattacharji, former HOD, Dept. of PMR, former Director, CMC Vellore,
   Prof. (Dr). Bobeena Rachel Chandy, Professor, Dept. of PMR, CMC Vellore,
   Dr. Rajdeep Ojha, Associate Professor, Dept. of PMR, CMC Vellore.
2.

A) Foot Pressure analysis by Dr. Siddhartha Sinha Ray, Assistant Professor, IPGME & R, Kolkata,

B) Balance analysis by Dr. Pranesh Mondal, RMO cum Clinical Tutor, IPGME & R, Kolkata

C) Isokinetic analysis by Dr. Ushnish Mukherjee, RMO cum Clinical Tutor, IPGME & R, Kolkata

~ Program Schedule on 29.03.24 ~

1. **Registration:8.30 am -9.30 am**
2. **Breakfast: 8.30 am – 10.00 am**
3. **PGT Award Session: (8+2 mins)**: **9.30 am - 10.20 am**
   Chairpersons:
   Prof. (Dr.) Asim Kumar Palit, Former HOD & Professor, B. C. Roy Polio Clinic & Hospital
   Prof. (Dr.) Jayanta Roy, HOD, Dept. of PMR, CMC, Kolkata
   Prof. (Dr.) Pankaj Mandal, HOD, Dept. of PMR, RGKMC, Kolkata
   Prof. (Dr.) Partha Pratim Das, HOD, Dept. of PMR, NRSMC, Kolkata,
   Speakers:
   1. Dr. Harivignesh R, 2nd Year PGT, IPGME & R, Kolkata: "A study on management of failed back surgery syndrome with percutaneous adhesiolysis".
   2. Dr. Sheezan Perwez, 2nd Year PGT, IPGME & R, Kolkata: "Improvement in gait parameters after phenol chemoneurolysis of selective motor branches to gastrocnemius muscle in post stroke spasticity in lower limb, - A case series"
   3. Dr. Anoovab Saha, 2nd Year PGT, RGKMC& H, Kolkata: "A comparative study to assess the efficacy between local injection of Platelet Rich Plasma and local injection of Corticosteroid in the treatment of Planter Fascitis."
   4. Dr. Laiphrakpam Ishwarlal Singh, 2nd Year PGT, IPGME & R, Kolkata: "Assessment of improvement in balance after implementing fall prevention technique in patients with Osteoporosis"
   5. Dr. Abhirup Sen, 2nd Year PGT, IPGME & R, Kolkata: "A comparative study on improvement of isokinetic parameters and pain between conservative treatment and additional EMG biofeedback training in subacromial impingement syndrome"
4. **Free paper session (10+2 mins) : 10.20 am – 11.00 am**
   Chairpersons:
   Prof. (Dr.) S.L. Yadav, Dept. of PMR, AIIMS, New Delhi
   Dr. M. M. Biswas, Senior Consultant Physiatrist, Ex Senior DNB Faculty, SNP Hospital
   Dr. Rakesh Jhalani, Senior Consultant Physiatrist, Ruby General Hospital, Ex Assistant Director, NILD
   Dr. JayantaSaha, Senior DNB Faculty, SNPH, Kolkata

Speakers:

1. Dr. Anindya Basu, SR, IPGME & R, Kolkata: "Ultrasound and Electrical Stimulator guided diagnostic nerve block for spasticity assessment".
2. Dr. Puja Sannyashi, SR, AIIMS, Kalyani: "Total Contact Casting beyond ulcers, - A case series"
3. Dr. Ayan Ghosal, SR, IPGME & R, Kolkata: "Ultrasound guided cervical sympathetic ganglion block in upper limb CRPS 1 – A case series"

5. Inauguration:11 am – 11.30 am

6. Guest faculty lecture:(20+5 mins): 11.30 am – 12.45 pm

- ***"PMR beyond Horizon:Technology to Practice – Christian Medical College, Vellore experience"***

Chairpersons:

Prof. (Dr.) R. N. Haldar, Former HOD, Dept. of PMR, IPGME & R, Kolkata

Dr. Abhishek Biswas, Former Director, NILD, Kolkata; President IAPMR- WB Chapter

Dr. Tapan Pal, Senior Consultant Physiatrist, IPGME & R, Kolkata

Prof. (Dr.) Sanjay Pandey, HOD, Dept. of PMR, AIIMS, Patna, Secretary IAPMR,

Speakers:

1. Prof. (Dr). Suranjan Bhattacharji, former HOD, Dept. of PMR, former Director, CMC Vellore
2. Prof. (Dr). Bobeena Rachel Chandy, Professor, Dept. of PMR, CMC Vellore
3. Dr. Rajdeep Ojha, Associate Professor, Dept. of PMR, CMC Vellore:

7. Medical Ethicsand Education:12.45 pm-1.00 pm

Chairpersons:

Dr. Aniketa Banerjee, Associate Professor, Dept. of PMR, Midnapore Medical College & Hospital,Midnapore

Dr. AmaleshBasak, Associate Professor, Dept. of PMR, IPGME & R, Kolkata

Dr. Pradip Kumar Mallick, Associate Professor, Dept. of PMR, BSMC, Bankura

Speaker: Dr. ArupRatan Ghosh, Assistant Professor, Dept. of PMR, Calcutta Medical College

8. PMR – Psychiatry interface: "Fibromyalgia"1.00 pm – 1.45 pmChairpersons:

Prof. (Dr.) Pallab Das, Former HOD, Dept. of PMR, RGKMC, Kolkata,

Dr. Mouli Madhab Ghatak, Senior Consultant Physiatrist, Director, MRC, Kolkata,

Prof. (Dr.) Firdaus Kamal, Professor, IPGME & R, Kolkata

Speakers:

1.Prof. (Dr.) SujitSarkhel, Professor, Dept. of Psychiatry, IOP, Kolkata:
"Fibromyalgia from a psychiatrist's perspective" **20 mins**

2. Prof. (Dr.) DilipKhatua, HOD, Dept. of PMR, BSMC, Bankura: **"RTMS in Fibromyalgia"** **10 mins**

3. Dr. Arindam Mitra, RMO cum Clinical Tutor, Malda Medical College, Malda:
"Yoga andRelaxation Technique in Fibromyalgia" **10 mins**

9. Lunch with parallel poster session: **1.45 pm – 2.30 pm**

Poster presentation:

1. Dr. Amala Sanjeev, 1st Year PGT, AIIMS, Kalyani: **"Treatment of bed sore in spinal cord injury patients – is surgery only option?"**
2. Dr. Indrajit De, 3RD Year PGT, IPGME & R, Kolkata : **"Axonal sensory motor polyneuropathy with near normal conduction velocity, a rare case report"**
3. Dr. ShubhajyotiGhosh, 3rd Year PGT, IPGME & R, Kolkata: **"Craniofacial anomaly with short stature in young female- A case report".**
4. Dr. RhitushreeBiswas, 3rd Year PGT, IPGME & R, Kolkata: **"Postural Aphasia in post craniectomy period in a Traumatic Brain Injury- case report"**
5. Dr. ArkadebSaha, 3rd Year PGT, IPGME & R, Kolkata: **"An atypical case of Cervico-Facial pain"**
6. Dr. KrishnenduDey, 3rd Year PGT, IPGME & R, Kolkata: **"New onset bilateral Upper Limb small muscle wasting in a known case of PPRP"**

7. Dr. Apurbalal Sarkar, 2nd Year PGT, IPGME & R, Kolkata: **"Gait anomaly with cognitive deficit in a young male – A unique case report"**
8. Dr. Subrata Pahari, 1st Year PGT, NRSMC & H, Kolkata: **"Preoperative Botulinum Toxin: A case of complex incisional hernia"**
9. Dr. Nibedita Malik, 1st Year PGT, NRSMC & H, Kolkata: **"Unilateral Stellate Ganglion block in a case of upper extremity digital gangrene"**

10. PMR Diagnostics2.30 pm – 3.30 pm

Chairpersons:

Prof. (Dr.) SuranjanBhattacharji, former HOD, Dept. of PMR, former Director, CMC Vellore,

Dr. AmeedEquebal, Assistant Director, NILD, Kolkata,

Dr. MohitKataruka, Associate Professor, Dept. of PMR, AIIMS, Kalyani

Speakers:

1. Prof. (Dr.) Sunirmal Choudhury, Professor and HOD, Dept. of Urology, Medical College, Kolkata: **"UDS interpretation of Neurogenic Bladder from Urologist's perspective". 20 mins**
2. Prof. (Dr.) Alok Pandit, Professor, BIN, Kolkata: **"NCS interpretation on a Neurologist's eye" 20 mins**
3. Dr. Sumedha Singh, Consultant Radiologist, Dept. of Radiology, INK, Kolkata: **"MRI interpretation of Brain in stroke and Traumatic Brain Injury" 20 mins**

11. Tips and Tricks on OsteoporosisManagement 3.30 pm – 4.15 pmChairpersons:

Prof. (Dr.) Rajesh Pramanik, HOD, Dept. of PMR, IPGME & R, Kolkata,

Dr. Mousumi Sen, Associate Professor, Dept. of PMR, CNMC, Kolkata,

Dr. VasundharaGhosal, Associate Professor, Dept. of PMR, IPGME & R, Kolkata

Speakers:

1. Prof. (Dr.) Sujoy Ghosh, Professor, Dept. of Endocrinology, IPGME & R, Kolkata: **"Practical BMD for clinicians" 20 mins**
2. Prof. (Dr.) Rana Bhattacharya, Professor, Dept. of Endocrinology, IPGME & R, Kolkata : **"Secondary Osteoporosis – practical approach" 20 mins**

12. Faculty Session:(20+5 mins)4.15 pm – 5.05 pm

Chairpersons:

Prof. (Dr.) Swapan Mishra, HOD, Dept. of PMR, CNMC, Kolkata

Prof. (Dr.) Ashok Midya, HOD, Dept. of PMR, Midnapore Medical College, Midnapore

Dr. Soumen De, Associate Professor, Dept. of PMR, NRSMC, Kolkata

1. Prof. (Dr.) ParthaPratim Pan, HOD, Dept. of PMR, NBMC, **: "Role of PRP in PMR"**
2. Dr. SubhasishPati, Assistant Professor, NMBC**, :"Beyond Stethoscope, time for digital marketing for Physiatrists !!, let's reach the unreachable".**

13. Tea: 5.05 pm – 5.20 pm

14. Rehab quiz, by Dr. Ambar Konar, Consultant Rehab Physician, Rehabana, Kolkata 5.20 pm- 6.00 pm

15. GB meeting: 6.00 pm – 6.45 pm

16. Cultural program: 6.45 pm onwards

17. Dinner : 7.30 onwards .....

Abstracts

PGT PAPER SESSION

TITLE: **A Study on Management of Failed Back Surgery Syndrome with Percutaneous Adhesiolysis**

Author : Dr.Harivignesh R (PGT)

Co-Author : Prof and HOD (Dr.) Rajesh Pramanik

Institute : Department of PM&R, IPGME&R, Kolkata.

Introduction: Conservative management has been the mainstay of treatment in Failed Back Surgery Syndrome patients. But most of the patients does not achieve adequate pain relief and functional outcome. Percutaneous Adhesiolysis can be used for these patients for pain relief and improvement in quality of life.

Objective: To compare the efficacy of conservative management and Percutaneous Adhesiolysis in pain relief and Disability in patients of Failed Back Surgery Syndrome.

Materials and Methods: Single Centred, parallel group, open labelled, randomized control trail including 20 patients attending PMR OPD in IPGME&R and SSKM Hospital in 6months with persisting pain/increased pain for atleast 6 months following spinal intervention, VAS more than or equal to 6, excluding patients with any spinal instability, neurological deficit, inflammatory pathologies, facet joint or sacroiliac joint pathologies or any other contraindication to the intervention. Parameters used were Visual Analogue Scale (VAS) and Oswestry Disability Index (ODI) at Day 1, 2weeks, 4 weeks and 12 weeks. Data, summarized by Mean and Standard deviation, analysed by Student's independent samples t-test between groups and by Paired t-test for pre- and post-intervention in a single group. Analysis was done using GraphPad software. Ethical clearance was taken and Informed consent was signed before intervention.

Result: Statistically significant ($p<0.05$) improvement seen in both VAS and ODI score in both groups. The following table shows the mean of VAS and ODI in both groups.

Group	Score	Day 1	2 weeks	4 weeks	12 weeks
Conservative management	VAS	6.6±0.22	5.4±0.16	5.1±0.23	4.1±0.28
	ODI	25.9±0.67	23.4±0.75	22.4±0.73	20.7±0.72
Percutaneous Adhesiolysis	VAS	6.5±0.17	3.6±0.22	3.3±0.15	3.1±0.23
	ODI	26.4±0.6	15.7±0.56	14.3±0.54	13.8±0.65

In both VAS and ODI there is gradual reduction in conservative management group, marked reduction in percutaneous adhesiolysis group. Percutaneous adhesiolysis shows statistically significant reduction in VAS and ODI scores at 2weeks, 4weeks and 12 weeks than that of conservative management group($P<0.05$).

Conclusion: Percutaneous Adhesiolysis is more effective in pain reduction and improvement of Quality of life than conservative management.

TITLE: **Improvement in gait parameters and MAS after phenol chemoneurolysis of selective motor branches to gastrocnemius musclein Post Stroke Spasticity of lower limb: A Case series**

Dr. Sheezan Perwez, 2nd year PGT,

Department of PM&R, IPGME&R, Kolkata

Introduction: Post stroke spasticity severely impairs patients' ability to walk. Gait abnormality seen is a characteristic circumduction gait with persistence of ankle in plantar flexion. Treatment option includes antispasticity medication but has limited role in management. Phenol chemoneurolysis of tibial nerve trunk is used but is non selective and can lead to weakness of soleus muscle impairing walking ability of patient. Selective motor point to gastrocnemius block can be used without affecting soleus muscle.

Aim: To assess improvement in gait parameters after the procedure.

Materials & method:

- Study design- Prospective single arm observational study.
- Duration: 4 weeks
- Place of work: Dept. of PM&R, IPGMER & SSKM hospital.
- Study population: Post stroke lower limb spasticity patients

- Scale: Gait parameters- Cadence, Stride length, Speed, MAS
- Assessment done on: Pre procedure Post procedure 1 week, 4 weeks

Result: Significant improvement in gait parameters and MAS was seen after motor point phenol Chemoneurolysis of gastrocnemius muscle.

Conclusion: Selective motor point chemoneurolysis of gastrocnemius muscle is an effective procedure in improvement in gait in post stroke spasticity.

TITLE: **A Comparative Study to assess the Efficacy between Local Injection of Platelet-Rich Plasma and Local Injection of Corticosteroid in the Treatment of Plantar Fasciitis**

Dr. Anoovab Saha PGT (2nd year)

Department. of PM&R, RGKMC&H, Kolkata

Introduction: Plantar fasciitis is the result of collagen degeneration of the plantar fascia at its origin. It is characterized by medial heel pain that worsens with weight bearing, as well as after rest or non-weight bearing. It can affect up to 7% of general population, and up to 22% in athletes or regular runner.In refractory cases, where conservative management fails, there are options like local corticosteroid injection, platelet-rich plasma, extra-corporeal shockwave therapy etc. Surgery should be the last option. In this study efficacy of local corticosteroid injection and local platelet-rich plasma will be compared.

Aim: To evaluate the effectiveness of local platelet-rich plasma injection and corticosteroid injection as adjuvant to physiotherapy in relieving pain intensity and improving foot function in the treatment of plantar fasciitis.

Method: It is a two-arm observational prospective analytical study, done over 12 months period at PMR OPD in R G Kar Medical College. OPD Patients, who were diagnosed to have plantar fasciitis by history and clinical examination and resistive to conservative treatment, were included. For each group 20 patients were randomly taken. One group received local Platelet-rich plasma injection and the other received local corticosteroid injection. Home physiotherapy was advised following both the procedures. Pain reduction was assessed by NRS scale and improvement in physical function was assessed by AOFAS Ankle-hindfoot score at 1-,3-, and6 months post-injection.

Result: The baseline AOFAS Ankle-hindfoot score, was 69.35 (±11.8423) in the Inj. CS group and 67.55 (±13.4731) in the Inj. PRP group, which at 6 months improved to 82.75 (±7.3619) and 93.10 (±4.6781) respectively. Both were significant ($p<0.001$). AOFAS Ankle-hindfoot score improved at a rate of 2.23 per month in Inj. CS group in compared to 4.26 per month in Inj. PRP group. So, Inj. PRP group had a more efficient and faster relief of symptoms compared to Inj. CS group.Similarly, the Numerical Rating Scale of pain also showed significant improvement in both the groups after 6 months and Inj. PRP group showed faster pain relief (0.975 per month) compared to Inj. CS group (0.633 per month).

Conclusions: Both local platelet-rich plasma injection and corticosteroid injection are effective and reliable interventions in reducing pain and disability in plantar fasciitis. However,effect of Inj. CS is not long lasting, when compared to PRP injection. But both the procedure has significant long-term effect in gradually improving foot function. So, considering its safety profileand durability of efficacy PRP may be used as adjunct of exercise therapy and as an alternative to CS injection, if necessary.

TITLE: **Assessment of Improvement in Balance after implementing Fall Prevention Techniques in Patients with Osteoporosis**

Presenting Author: Dr. Laiphrakpam Ishwarlal Singh (PGT)

Co Authors: Dr. Amalesh Basak, Associate Professor, Prof. & HOD (Dr.) Rajesh Pramanik

Department of PMR, IPGME&R, Kolkata

Introduction: Osteoporosis is a serious health concern around the world, especially among the aged population. It is a skeletal illness characterised by decreased bone density. Balance deficits is one of the main effects of osteoporosis which significantly contribute to the risk of falls and subsequent fractures, which further can lead to severe morbidity, decreased quality of life, and increased healthcare costs. Fall prevention techniques have shown a significant reduction in falls due to improvement in balance, but there is currently a lack of evidence regarding the extent of this improvement. A thorough evaluation of balance outcomes can be obtained with a balance analyser, which provides accurate measurements.

Objective: The primary objective of this study is to assess any improvements in parameters in balance analyser after fall prevention techniques in patients diagnosed with osteoporosis. The secondary objectives include assessing the effectiveness of the balance analyser as an objective measure of balance.

Materials and Methods: Parallel group, open labeled, Randomised Controlled Trial(RCT)including 35patients

attending PMR OPD in IPGME&R, between November/2023 and January /2023, included with confirmed diagnosis of primary osteoporosis , based on recognised diagnostic standards, such as clinical evaluations or measures of bone mineral density (on DEXA, BMD – T score less than or equal to -2.5, WHO classification), elderly patients of either gender with preferably age range of 50years or more and excluding any neurological disorders ,recent fractures ,severe co morbidities , secondary osteoporosis , visual deficiency, severe auditory deficiency and vestibular alteration; randomised into 2 groups-Intervention group: Fall prevention techniques with conservative or medical management and Non- intervention group (control group) : Only conservative or medical management . Parameters (in balance analyser) were sway index, stability index, average composite score in CTSIB, postural sway velocity score taken pre-intervention, at day1,and post-intervention at 2 weeks ,4 weeks and 12 weeks. Data, summarised by Mean and Standard deviation, analysed by Student's independent samples t-test between groups and by Paired t-test for pre- and post-intervention in a single group. Analysis was done using Graph Pad software. Ethical clearance was taken, and Informed consent was signed before giving intervention.

TITLE**: Comparative Study on Improvement of Isokinetic Parameters and Pain between Conservative Treatment and additional EMG Biofeedback Training in Subacromial Impingement Syndrome**

Presenting Author: Dr. Abhirup Sen (PGT)

Co-authors: Prof. (Dr.) Firdaus Kamal; Prof. & HOD (Dr.) Rajesh Pramanik

Department of PMR, IPGME&R, Kolkata

INTRODUCTION: Conservative treatment with rehabilitative exercises is mainstay treatment for subacromial impingement syndrome, but responses are inadequate and long term pain relief is not achieved many times. EMG biofeedback training can be used for improving muscular activity and reducing pain in subacromial impingement syndrome that do not respond to conservative treatment. Aim is to compare efficacy of conservative treatment and additional EMG biofeedback training by objective isokinetic assessment of shoulder and subjective pain relief.

METHOD: Parallel group, open label, randomised controlled trial including 20 patients attending PMR-OPD in IPGMER, over a period of 3 months, included with age 18-40 years, moderate to severe pain on involved shoulder abduction not controlled by oral pharmacological method (VAS score > 5), clinically S/O impingement syndrome (Hawkin-Kennedy test, Neer test, Painful arc test) and USG/MRI confirming narrowing of subacromial space; excluding rotator cuff tear, H/O previous surgery or trauma to shoulder, other obvious associated cause for shoulder pain, severe weakness of shoulder; randomized into 2 groups- conservative treatment and additional EMG biofeedback. First group received conservative treatment with rehabilitative exercises, second group received additional EMG biofeedback training for 4 weeks. Parameters were Peak torque/Body weight (Abduction), Peak torque/Body weight (Adduction), Average Power (Abduction), Average Power (Adduction) and Visual analogue scale (VAS) score for pain; measured pre-procedure, at 4 weeks and at 8 weeks of post-procedure. Data were summarised by Mean and Standard deviation, analysed by Students independent samples t-test between groups and by Paired t-test for pre- and post-procedure in a single group. Analysis was done using Graphpad software. Ethical clearance was taken from Institutional Ethics Committee and Informed consent was signed before each procedure.

RESULT: Statistically significant ($p<0.05$) improvement of PT/BW (ABD), PT/BW (ADD), AVGP (ABD), AVGP (ADD) and VAS from baseline are seen in both groups.

Group	Parameters	Pre-procedure	4 Weeks	8 Weeks
Conservative treatment	PT/BW (ABD)	5.570±0.452	5.690±0.563	5.860±0.488
	PT/BW (ADD)	4.080±0.377	4.170±0.374	4.330±0.383
	AVGP (ABD)	3.130±0.481	3.270±0.447	3.410±0.461
	AVGP (ADD)	3.100±0.408	3.250±0.420	3.390±0.428
	VAS	7.50±0.97	7.00±0.67	6.00±0.67
Additional EMG biofeedback	PT/BW (ABD)	5.560±0.521	6.040±0.582	6.490±0.569
	PT/BW (ADD)	4.040±0.440	4.500±0.455	4.960±0.448
	AVGP (ABD)	3.110±0.536	3.660±0.420	4.100±0.485
	AVGP (ADD)	3.140±0.427	3.630±0.440	4.150±0.435
	VAS	7.80±0.92	6.50±0.71	5.10±0.88

For all parameters EMG biofeedback training with conservative treatment shows statistically more significant improvement than conservative treatment alone at 8 weeks ($p<0.05$).

CONCLUSION: In comparison to conservative treatment alone, additional EMG biofeedback training is more effective in improvement of isokinetic parameters and pain in long term follow-up.

Abstracts

PGT POSTER SESSION

TITLE: **Pressure Ulcer treated with Platelet Rich Plasma : A Case Report**

Dr Amala Sajeev**,** PGT (1st Year)

Department of PMR, AIIMS, Kalyani

Background: Platelet-rich plasma (PRP) therapy is a promising approach for treating pressure ulcers due to its ability to enhance wound healing by stimulating cell proliferation, angiogenesis, and collagen synthesis.

Objective: This case report aims to present the outcomes of PRP treatment in a stage 4 pressure ulcer over the left gluteal region.

Case Summary: A 21-year-old male with a history of traumatic spinal cord injury presented with non-healing ulcer over the left gluteal region for last 6 month. Despite multiple antibiotic treatments and topical therapy and dressing the ulcer showed no signs of healing. The patient underwent PRP injections every alternate day for 12 cycles, resulting in improved healing and a significant reduction in ulcer size.

Conclusion: Platelet-rich plasma injection is an effective therapeutic option for non-healing pressure ulcers, offering accelerated wound closure and reduced infection risk. This case highlights the potential of PRP as an adjunct to traditional wound care for promoting tissue repair and regeneration.

Title: Axonal Sensory Motor Polyneuropathy with Near Normal Conduction Velocity: A Rare Case Report.

Dr. Indrajit De PGT (3rd Year), Prof and HOD (Dr.) Rajesh Pramanik , Dr. Anindya Basu (Senior Resident)

Department of PMR, IPGME&R, Kolkata

Introduction: Peripheral neuropathy includes all conditions resulting in injury to the peripheral nervous system and is best categorized by the localization of the nerve injury. Rare localizations of peripheral neuropathy, however, often require more extensive diagnostic testing and different treatments.It is mainly of two types- axonal and demyelinating variety. Among these two axonal is about 15-20% of all peripheral neuropathy.

Case Presentation: A 70 yrs. old diabetic male presentedwith insidious onset slowly progressivesymmetrical numbness and decreased sensation of both lower limbs (distal predominant) for last 5 yrs. andwalking difficulty for last 4 yrs. and 9 months. Atrophy of B/L calf and hamstring,thenar muscles and 1st web space of both upper limbs.

No history of similar episode in family members, preceding fever & diarrhoea, any exposure to toxin or heavy metal, trauma, convulsion, bowel/bladder incontinence, respiratory difficulty, joint pain,skin changes, abnormal involuntary movements, weight loss, photosensitivity, urinary discolouration, TB or any contact H/O TB, addiction.

Vitamin B12 and CPK within normal limit. NCS study shows axonal sensory motor polyneuropathy. Genetic test report shows Charcot-Marie-Tooth type2 which confirmed the diagnosis.Patient was focused on strict glycaemic control with conservative management for B/L foot drop with orthosis, electrical stimulation and exercises. After 2 months follow up patient's balance and walking pattern improved and currently patient is under proper rehabilitation programme.

Discussion: Rare and unusual presentation of peripheral neuropathy often pose problem of differential diagnosis. Meticulous history, clinical examination, nerve conduction study and genetic testing helpto reach final diagnosis. Start of conservative treatment with proper rehabilitation with orthoses play a mainstay in management as well as functional outcome of patient as there is no definite treatment.

Conclusion: Early diagnosis is crucial to prevent disability due to disease progression and also to improve quality of life. Conservative treatment and proper rehab training help to better outcome of the patient.

TITLE: **Craniofacial Anomaly with Short Stature in a Young Female: A Case Report**

Dr Subhajyoti Ghosh PGT (3rd Year), Prof and HOD (Dr) Rajesh Pramanik,
Dr Amalesh Basak (Asso Prof), Department of PMR, IPGME&R, Kolkata

Introduction: Rubenstein taybi syndrome is a rare genetic disorder(incidence 1 in 100000). With multi system involvement, including neurodeficit, facial dysmorphism, skeletal abnormality usually symptom specific treatment with behavior therapy is given and is inherited in autosomal dominant pattern.

Case Report: A 22 year hypothyroid, diabetic, obese, short statured female presented with cognitive deficit, poor communication and feeding difficulties with gait ataxia, facial dysmorphism with hearing difficulties since birth.on

examination gross upper limb power 4/5, lower limb 3/5.facial dysmorphism is manifested as beak nose with broad nasal bridge, low hanging columella, micrognathia, maxilla hypoplasia, down slanting palpebral fissure, hypertelorism, ptosis with abnormal shaped fingers. Patient was shown in various OPDs for symptom treatment as pediatrics and orthopaedics.

Metabolic profile is deranged. X ray of hands showed phalangeal broadening, with kyphoscoliosis in spine. Echo was normal. Whole exome sequencing showed the diagnosis as CREBBP deletion involving chromosome 16 micro deletion.

Management of this disease includes coordinated efforts within physical and occupational therapist rehabilitation physicians with other specialists including medical complications. Awareness reguarding signs and symptoms with social, psychological support with genetic counselling is required with these patients.

Conclusion: Such craniofacial syndromes should be early diagnosed to prevent complication and awareness is required among physicians.

Title: **Postural Aphasia in Post-Craniectomy Period in a Traumatic Brain Injury : A Case Report**

Dr. Rhitushree Biswas, PGT (3rd Year) ,

Department of PMR, IPGME&R, Kolkata

Craniectomy is a common neurosurgical procedure. “Sinking skin flap syndrome”(SSFS) or “Syndrome of Trephined” is a rare complication that can occur after decompressive craniectomy. Despite the importance of early recognition, the description of SSFS has relied on a limited number of case reports.

We present a case of a 19 year old male with history of severe brain trauma underwent decompressive hemicraniectomy with satisfactory post-operative recovery who developed SSFS with paradoxical brain herniation after 3 years.

Disabling neurological deficits, as well as impairment of overall mental status with development of concave deformity and relaxation of skin flap are frequently observed several weeks to months after craniectomy, worsened by CSF diversion, dehydration and change in position. It is imperative to recognize the syndrome early and proceed with urgent management with measures that initially increase intracranial pressures. In certain cases, proceeding with surgical management, such as cranioplasty can be lifesaving.

TITLE: **An Atypical Case of Cervico-Facial Pain**

Dr. Arkadeb Saha PGT (3rd Year), Prof and HOD (Dr) Rajesh Pramanik, Dr. Pranesh Mondal (Clinical Tutor)

Department of PMR, IPGME&R, Kolkata

Introduction: Elongation of styloid process associated with cervico- facial pain and dysphagia is known as Eagle’s syndrome, a rare condition. Given its low prevalence and complex symptomatology , this syndrome is often misdiagnosed leading to chronic pain and medical nomadism.

Case Report: A 28 year old female was suffering from retro-angulomandibular pain radiating to ear for last 6 years which has worsened over time. She was under t/t with an Orthopedician in private for 3 years and then was referred to Dental and ENT dept of govt. medical college and from there further referred to PM&R dept. Pain is stabbing in nature and aggravates to chewing and swallowing mostly with solids and rotation of head to right. Pain is experienced almost every day with 2-3 times/day with approx 1hr duration on each time. VAS was 5/10.

Imaging studies of cervical spine and TMJ revealed no abnormality and there was no cervical lymphadenopathy. On X ray skull elongated left styloid process was suspected which was later confirmed by 3D CT scan.

Discussion: Eagle’s syndrome should be considered as a d/d in cases of cervical, oropharyngeal and craniofacial pain of unknown origin irrespective of surgical history. This case report highlights the medical nomadism the patient underwent after consulting several health professional before receiving correct diagnosis. Management is associated with conservative in NSAIDs, Pregabalin, Nortiptiline and Glossopharyngeal nerve block and or Pulsed RFA and surgery (Styloidectomy).

Conclusion: Early diagnosis is crucial to prevent deleterious physical and social consequences.

TITLE: **Post Polio Syndrome in A Bilateral Symmetrical Post Polio Residual Paralysis**

Dr. Krishnendu Dey, PGT(3rd Year)

Departmentt of PMR, IPGMER Kolkata

Post polio residual paralysis is a LMN type of MND, where there is an asymmetric residual paralysis after an episode of Acute flaccid paralysis after polio virus infection, occurring only in 5% cases. PPRP generally presents as asymmetric paralysis and there are **very few reported cases of Bilateral symmetric paralysis.** Almost 50% cases of PPRP can

present with new onset weakness even after 20-40 years of primary disease, known as Post polio syndrome, which is mainly due to loss of motor neurons that compensated for the neuron loss after the original infection.

Here in this case, a 24-year-old boy, presented with B/L symmetrical LMN type progressive weakness of distal upper limbs for last 4 years. He had a history of B/L symmetrical LMN type lower limb weakness for 16 years, started after an episode of high-grade fever. No sensory or cranial neuropathy. From history and clinical examination, 3 differential was stated, i.e. LMN type MND, Peripheral neuropathy involving only motor neuron and distal myopathy. Distal myopathy and Motor specific peripheral neuropathy were ruled out from NCS and EMG findings, which shows neuropathic pattern without any demyelinating features. LMN type MND could be PMA, SMA, Hirayama disease, Poliomyelitis. PMA and SMA is highly unlikely due to late age of onset and completely normal proximal and axial muscle. Hirayama was ruled out based on EMG pattern showing neuropathic involvement of Brachioradialis muscle, although there were suspicious cervical MRI findings. So final diagnosis was made Post polio syndrome in a case of Bilateral symmetrical post-polio residual paralysis.

As PPS has no diagnostic marker and no definite treatment, patient was advised a proper rehabilitation for prevention of any future deterioration and hand and foot orthosis were prescribed for functional improvement.

TITLE: **Gait Anomaly with Cognitive Deficit in a Young Male: A Case Report**

Dr Apurbalal Sarkar PGT(2nd Year) , Prof and HOD (Dr) Rajesh Pramanik,

Dr Amalesh Basak (Asso Prof), Dr. Anindya Basu (Senior Resident)

Departmentt of PMR, IPGME&R Kolkata

INTRODUCTION: Corpus callosum connects both cerebral hemispheres and here it is partial malformed. One of the causes is maternal alcohol intake in later pregnancy or can be inherited as X linked or autosomal dominant and can lead to mild mental retardation

CASE REPORT A 20 year male presented with walking difficulty and ataxic gait since 4 years. He has cognitive deficit which was noticed by parents at 15 years of age . he was born in home by vaginal delivery and developmental history as stated by parents in unconvincing. Clinically there is no facial dysmorphism or cardiovascular anomalies or hearing or visual impairement

On examination, MMSE 17/30 he has spasticity in gastrosoleus with B/L knee and patellar clonus . upper and lower limb cerebellar signs are positive with B/L hypothenar wasting. Tandem gait couldn,t be performed though power gross 5/5, no sensorimotor deficit.

Imaging was done for 2 times though non significant changes found and the patient was referred to several physicians and neurologists.Now MRI imaging has shown corpus callosum dysgenesis with diffuse cerebellar atrophy.

CONCLUSION: **Corpus callosum dysgenesis** usually presents as inherited disorder in association with spina bifida, facial dysmorphism or other system involvement. Occassionaly has H/O maternal alcohol intake in antenatal period . Awareness among radiologists is required for antenatal ultrasound diagnosis. Further genetic testing is required in our case for further management.

TITLE: **Preoperative Botulinum Toxin: A Case of Complex Incisional Hernia Repair**

Dr. Subrata Pahari PGT(1st Year), Prof and HOD (Dr) Partha Pratim Das, Dr. Saumen De (Asso Prof), Dr. Keshab Mondal (Asst Prof) , Dr. Sandipan Hazra (Asst Prof), Department of Physical Medicine and Rehabilitation
Dr. Amit Roy (Asso Prof), Department of Surgery, Nil Ratan Sircar Medical College and Hospital, Kolkata, West Bengal

INTRODUCTION:

Complex incisional hernia presents a significant surgical challenge plagued by high morbidity and recurrence rates (24-43%). This is a frequent (occurring in 20–28% of patients) and potentially deadly adverse effect of open abdominal surgery (most common being midline laparotomy). The problem is compounded with each successive failed repair.

Botulinum Toxin A(BTA) is a neurotoxin which blocks the release of acetylcholine at the neuromuscular junction, resulting in reversible flaccid paralysis of the affected muscles lasting up to 3-6 months. BTA injections have recently been identified as a potential pre-operative means to counteract abdominal wall tension, reduce hernia size, and facilitate fascial closure during hernia repair.

We used botulinum toxin in this case of large complex incisional hernia repair.

CASE PRESENTATION:

A 23-year-old male presented in General surgery Dept. of NRSMCH, with a large midline bulge along a previous midline incision for last 4 years in the setting of multiple previous laparotomies for various abdominal conditions, hampering his daily activities. Physical exam revealed a partially reducible mass.

Computed tomography (CT) of the abdomen revealed a defect of 15.9 cm x 9.7 cm (CC x TR) extending from epigastric to pelvic region with loss of domain (HSV/ACV) 26% (Tanaka method), containing loops of the bowel. USG-guided pre-operative botulinum toxin administration was done at the PM&R Dept. of NRSMCH. A total of 600 units of botulinum toxin were instilled at three sites into the muscular layers of the abdominal wall (external oblique, internal oblique, transverses abdominis) on each side after all the necessary investigations done. Surgical hernia repair was performed using a large mesh after 4 weeks of botulinum toxin administration.

RESULT:

A comparison of CT scans before and after BTA injection showed decrease in the defect size (11.2 cm x 6.3 cm) as well as HSV/ACV being 20% from 26%. Tension-free repair of the hernial defect had been achieved without major complications. There was no clinical evidence of hernia recurrence at 3-months follow-up.

CONCLUSION:

Pre-operative administration of BTA is a safe and effective technique in the pre-operative preparation of patients undergoing elective complex ventral hernia repair.

This technique lengthens and relaxes the laterally retracted abdominal muscles and enables laparoscopic closure of large complex ventral hernia. However, additional long-term studies are needed to provide solid proof of its recommended dosage and its therapeutic benefits in this area.

FREE PAPER SESSION

TITLE: **Ultrasound and E-STIM guided Diagnostic Nerve Block for Spasticity Assessment**

Dr. Anindya Basu (Senior Resident), Prof and HOD (Dr) Rajesh Pramanik

Department of PMR, IPGME&R, Kolkata

Spasticity is one of the common complications of the upper motor neuron syndrome. Spasticity is defined as the velocity dependent resistant to stretch of involved muscles. It is assessed by moving the joints through its range of motion. It's pathogenesis lies in the overactivity of muscle spindles and also the change in the structure of the muscle(hyaluranan deposition). Interventional techniques to manage spasticity include injection of botulinum toxin and phenol neurolysis which mainly work by decreasing the muscle spindle hyperactivity but have no effect on the spasticity caused by stuctural changes of muscle. In this series of case reports we have performed diagnostic nerve block using local anaesthetics,ultrasound and e-stim guidance ,thereby abolishing muscle spindle hyperactivity, to exactly pinpoint the muscle causing spasticity and also prognosticate the amount by which spasticity can be reduced by future botulinum toxin therapy or phenol neurolysis.

TITLE: **Total Contact Casting Beyond Ulcers- A Case Series.**

Dr Puja Sannyashi (Senior Resident)

Department of PMR, AIIMS, Kalyani

Introduction: A foot ulcer is a common consequence in peripheralneuropathic patients. Diabetic and post-leprotic patients suffer from neuropathy, which is the most important factor in developing ulcers.Attempt to treat neuropathic plantar foot ulcers by non-surgical technique.

Case 1- A 70-year-old female known case of post-leprosy suffering from a bilateral foot deformity and right-sided planter foot ulcer for the last 30 years presented at PMR OPD with present complaints of walking difficulty with the non-healing ulcer. Previously modified shoe was prescribed but unable to wear due to foot deformity &non-healing ulcer, so she started barefoot walking, which affects her outdoor activity and ADL. Initially planned for shoe modification but the hindrance was ulcers.So TCC started and ulcer healed completely then advised custom-made modified shoe. Now the lady can perform her daily activities and enjoyoutdoor activities.

Case 2- A 55-year-old male known case of leprosy,only earning member of his family, pandal decorator by profession referred from dermatology OPD to PMR OPD with left hindfoot planter ulcer for last 2 years due to which he was unable to perform his job and daily activities. Initially,shoe modificationwas done but on review,the ulcer remained in same size and depth.so TCC started which healed the ulcerwithin one and a halfmonths.And he started walking with that modified shoe. Now activity of daily life of that man improved and pursuing his previous job happily.

Case 3- a 60-year-old male known case of diabetes for the last 20 yearswas referred from endocrine OPD to PMR OPD with a present complaint of Charcot's foot with a nonhealing plantar ulcer for the last 5 years. we start treated with total contact casting and the process is ongoing and the ulcers are healing well.

Discussion- Total contact casting is a well-known off-loading, low-cost effective procedure for foot ulcers that can improve the lifestyle and ADL.

Conclusion- TCC is an effective nonsurgical footrehabilitative procedure.

Reviewer report-

TITLE: **Ultrasound guided cervical sympathetic ganglion block in upper limb CRPS 1: a case series**

Dr Ayan Ghosal (Senior Resident), Prof and HOD (Dr) Rajesh Pramanik

Department of PMR, IPGME&R, Kolkata

Complex regional pain syndrome type 1 (CRPS 1) is a common cause of sympathetically induced pain .

For upper limb CRPS, cervical sympathetic ganglion block is found to be gold standard for diagnosis and treatment. Ultrasound guided block of cervical sympathetic ganglion is novel and safe approach. We gave ultrasound guided cervical sympathetic ganglion block with steroid and ropivacaine to three patients and compared pre and post procedure VAS and followed up for 3 weeks. There was significant VAS reduction in all three patients with maintenance of the reduced VAS for 3 weeks. There was no adverse effect in any patient. In conclusion ultrasound guided cervical sympathetic ganglion block can be an easier and safer option to reduce upper limb CRPS.

Keywords: Ultrasound, CRPS-1, Cervical sympathetic ganglion.

FACULTY PAPER SESSION

TITLE: **Role of PRP in PMR**

Prof (Dr) Partha Pratim Pan (HOD), Department of PMR, North Bengal Medical College

Background: Meniscal injuries are among the most frequently encountered traumatic conditions in the knee joint.

Therapeutic approaches are diverse and are largely dependent on the extent and location of the injury. Outcome of Surgery is not always encouraging.

Platelet-rich plasma (PRP) has become a popular treatment for acute and chronic soft tissue injuries.

Objectives: The purpose of this study was to describe the clinical and functional outcomes of intraarticular platelet-rich plasma (PRP) injections in patients with medial meniscal injuries with a comparative study between different grades of injury.

Materials and methods: We have formulated a study to diagnose medial meniscus injury in patients diagnosed clinically & confirmed by MRI and administer 2 intraarticular PRP injections at interval of 6 weeks. Pre and post-intervention data is collected from patients. Outcome measures included the Numerical Rating Scale for pain and Oxford Knee Score.

Results: The study is ongoing with an aim to collect data from 50 patients. Data has been collected from 10 patients so far, which show a significant improvement in clinical and functional outcomes particularly in lower grades of injury.

Conclusion: Platelet rich plasma may be considered as the first line therapeutic approach in patients with grade one & grade two medial meniscus injuries.

ARTICLES

FOOT PRESSURE ANALYSIS

Dr Vasundhara Ghosal

Foot pressure analysis involves assessing how weight is distributed across the feet during various activities such as walking, running, or standing. This analysis is often conducted using specialized equipment like pressure plates or insoles with sensors. Foot pressure analysis provides valuable insights for improving biomechanics, preventing injuries, enhancing performance, and facilitating rehabilitation, making it an essential tool in various fields related to foot health and sports medicine.

Uses:

1. Identify Imbalances: Analyzing foot pressure helps in identifying any imbalances or abnormalities in weight distribution, which could lead to issues like overpronation, supination, or uneven pressure distribution.
2. Injury Prevention: Understanding how pressure is distributed can help in designing personalized exercise programs or recommending footwear modifications to prevent injuries related to poor biomechanics or gait abnormalities.
3. Performance Enhancement: For athletes, analyzing foot pressure can optimize performance by identifying areas of potential improvement in technique, stride, or foot alignment.
4. Customised foot Orthoses (CFO): Foot pressure analysis guides the design and customization of orthotics or insoles to provide better support and alignment for individuals with foot-related problems.
5. Rehabilitation: During rehabilitation from foot injuries or surgeries, monitoring foot pressure can track progress and ensure that weight is distributed evenly as the individual returns to normal activities.
6. Patient Education: Visualizing foot pressure patterns helps patients understand the mechanics of their feet and how certain movements or habits may affect their foot health, empowering them to make informed decisions about footwear and activities.

Equipment pre-requisites:

1. Preparation of Equipment: the equipment is to be set up on a flat, stable surface. Proper calibration is to be ensured according to manufacturer guidelines to obtain accurate measurements.
2. Patient Preparation: Patient is to be instructed to stand barefoot on the pressure plate Patient is to be positioned in a relaxed stance with equal weight distribution on both feet.
3. Data Collection: Data is to be collected by recording process using the pressure plate while the patient performs various activities such as standing and walking walking,
4. Multiple trials: Multiple trials are to be recorded to capture variability and consistency in foot pressure patterns.
5. Clinical Assessment and Co-relation: Interpretation of result the findings are to be in the context of the patient's symptoms, medical history, and functional limitations. Any abnormalities, imbalances, or areas of concern that may contribute to foot pain, instability, or dysfunction are to be identified.
6. Documentation: Proper documentation of standing and walking data to be done.
7. Follow-up and Monitoring: Follow-up appointments are to rscheduled to eassess foot pressure patterns after implementing interventions or modifications. Progress is to be monitored over time and make adjustments as needed to optimize outcomes and address any ongoing issues.

Equipment Features:

High quality capacitative force sensors

Interface: video module Synchronisation, Infrared transmitting Sync. In/ Sync. Out

No of sensors: 11264-22528

Measuring range: 1-120 N/cm sq

Dimension: L (158-307) x W (60) x H (2.5)

Procedure

1. Static Pressure
2. Roll on Analysis

Outcome tools

1. Peak Pressure
2. Pressure time integral
3. Contact area
4. Pressure distribution

Peak pressure: It ranges 500- 500kPa in standing. During walking it ranges from 200- 1000KPa with higher values seen at heel and forefoot.

Pressure time integral: May range from 500-5000 KPa.s. It depends upon weight bearing status and amount of standing.

Contact Area: Typically ranges from 50-250 sq cm per foot depending upon foot size and weight distribution.

Pressure distribution : Depends upon pressure distribution in forefoot, midfoot and hindfoot

Result Analysis

Stance Analysis Report

Standing pressure distribution: Generally weight should be distributed across both feet with slightly more pressure on heel and metatarsal head. (Fig 1)

Typically heel bears 25-30 % body weight in while Metatarsal head bears 70-75 % of overall body weight. COP (Center of Pressure) parameters refer to specific metrics used to assess the location and movement of the center of pressure under the foot during gait or standing. In standing pressure distribution, COP can be measured by parameters like length, displacement, area, sway etc.

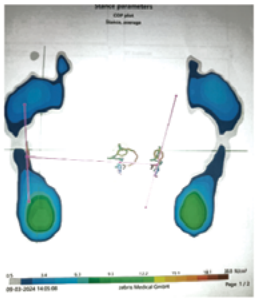


Fig 1



Fig 2

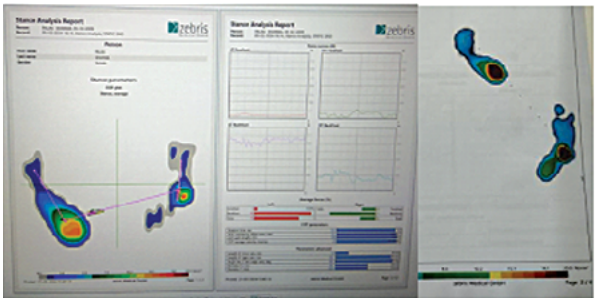


Fig 3 & 4

Abnormal pressure distribution leads to various pathologies.

Case study: A girl with insensate foot was suffering with recurrent foot ulcer(Fig 2)

She under went foot pressure analysis (Fig 3, Fig 4) that coroborated with the ulcer finding showing very high pressure distribution in the area overlying the ulcer area.



Fig 5 & 6

Based on her finding, she was prescribed customised orthosis (Fig 5) and the ulcer reduced drastically.(Fig 6)

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Roll Analysis Report

Roll-on analysis of foot pressure involves dynamically measuring pressure distribution across the plantar surface of the foot as it rolls from heel to toe during the stance phase of gait. (Fig 7)

The line of progression in foot pressure measurement refers to the path along which pressure data is collected during gait analysis. It typically starts from the heel region and progresses towards the forefoot as the foot makes contact with the ground and advances through the stance phase of walking (Fig 8)

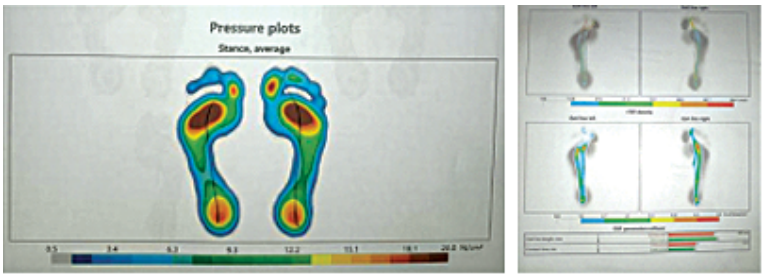


Fig 7 & 8

Disadvantage: Foot pressure distribution measurement provides only one aspect of foot biomechanics and may not capture other important factors such as muscle activity, joint motion, or tissue deformation. Also, limited temporal resolution, making it difficult to capture rapid changes in pressure distribution during dynamic activities such as running or jumping.

Possible Added features: Integration with Wearable Devices: Integrating foot pressure sensors into wearable devices such as pressure sensors in insole for distribution of pressure between the shoe and sole of feet.

Multi-Sensor Fusion: Combining foot pressure sensors with other biomechanical sensors, such as inertial measurement units (IMUs) or electromyography (EMG) sensors, would provide a more comprehensive understanding of foot function by capturing additional parameters such as joint motion, muscle activity, and balance control.

Contraindication

1. Open wound /Infection
2. Severe peripheral neuropathy
3. recent foot surgery/ fracture
4. Severe vascular insufficiency
5. Skin conditions like psoriasis/ eczema
6. Severe foot deformities

Overall, understanding foot pressure distribution is essential for optimizing foot function, preventing injuries, and enhancing overall quality of life.

Diagnostic and Therapeutic aspect of Isokinetic System

Dr Ushnish Mukherjee

Isokinetic exercise and testing is based on the principle of accommodating resistance to the effort the subject applies. Throughout the range of motion the lever arm moves at a preset fixed speed allowing the dynamometer to measure the torque output achieved by the patient.

This is unlike manual muscle testing which is a static test, and Isotonic testing which measures strength at the strongest portion of the ROM and is also affected by speed of movement.

ISOKINETIC TESTING

Testing Protocol

- Patient Education
- General Cardiovascular warm up
- During warming up, set up the computer information and dynamometer
- Seat and Stabilize patient
- Pre-Speed warm up
- Run test set
- Rest period
- Repeat steps 4-6 to complete other test speeds

Test Repetitions - At least three (3) repetitions are needed for the Software to calculate correctly the test data. Standard isokinetic knee testing is as follows: Slow speed: 60 deg/sec- 5 reps , Moderate speed: 180 deg/sec -10 reps, High speed 300 deg/sec - 15 reps.



Biodex System 4 Pro Isokinetic Dynamometer

Reading test results:

The software collects real time data and following particulars are assessed: Percent deficit by comparing the uninvolved to the involved side, Peak Torque (Peak TQ) and Peak Torque / Body Weight (Peak TQ/BW), Time To Peak Torque, Angle Of Peak Torque, Max Rep Total Work, Average Power, Range Of Motion, Agonist To Antagonist Ratio, Gravity Effect Torque (Get) and Curve Analysis.

ISOKINETIC TRAINING



Isokinetic Shoulder Abduction Adduction Training

In Isokinetic system torque production varies with speed. More torque can be produced concentrically at lower speed and vice versa.

More motor units can be recruited at lower speed that allows more torque production. The converse is true eccentrically, the higher the preset speed the more torque will be produced which is due to the nature of eccentric muscle physiology.

Compressive and translational forces across a joint will vary with speed also. Faster speeds have less compressive forces than slower speeds. For example, patellofemoral pathologies should be started out at higher speeds to reduce the compressive forces across the joint which in turn will protect the joint surface and will be more comfortable to

the patient. On the other hand, a shoulder with multidirectional instability should be started out with lower speeds to use the compressive forces to stabilize the shoulder in the glenoid fossa.

The use of speed is also important with curve analysis, as deficits will be more pronounced at the slower speeds.



Isokinetic Knee Flexion Extension Trainning

Isokinetic Training Effects

Since the subject essentially needs to "catch" the machine to develop resistance, isokinetic exercise helps to develop the following:

- Time Rate of Tension Development (TRTD):

Indicates how quickly torque can be developed during a muscular contraction.

- Decreased RIT (Reciprocal Innervation Time):

Time interval between the end of the agonist contraction and the beginning of the antagonist contraction. A poor RIT means that a patient may have difficulty generating power. The ability to generate power is crucial for injury prevention. For example, the hamstrings protect the ACL during movements.

- Strengthens Musculotendineous Junctions:

This occurs with any resistance exercise as the body adapts to the demands imposed on it.

Both training and testing protocol should be customized according to the subject. Results are also encouraging. In short, isokinetic testing and training provide more effective time and energy efficient approach to achieve rehabilitation targets

The Balance System: Diagnostic and Therapeutic Role in PMR

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Balance System is an important tool, commonly used in Neuro-Rehabilitation, Geriatric Rehabilitation, Pediatric Rehabilitation and Sports Rehabilitation. It permits testing and training for balance disorder in both staticand dynamic formats. Detection of underlying etiology by measurement of kinesthetic & proprioceptive abilities, and determining neuromuscular control (stability and degree of sway values) is the key role of this versatile instrument.

Indications:

It is used in Parkinson's disease, Stroke, TBI, Peripheral neuropathy, BPPV, Meniere's disease, labyrinthitis, Spinal cord disorders, MSK disorders of lower limbs and trunk, osteoporosis, deconditioned, fall risk, concussion management and other generalconditions.

Contraindications

Contraindications include severe osteoporosis, non-union fractures, Bariatric patients weighing greater than 400 pounds, patients under 60 pounds, patients with poor safety awareness/cognition, acute conditions such as pulmonary embolus, thrombus, acute MI, acutefractures, BP over 180/110 Hg, patients with severe debilitating dizziness.



Parts:

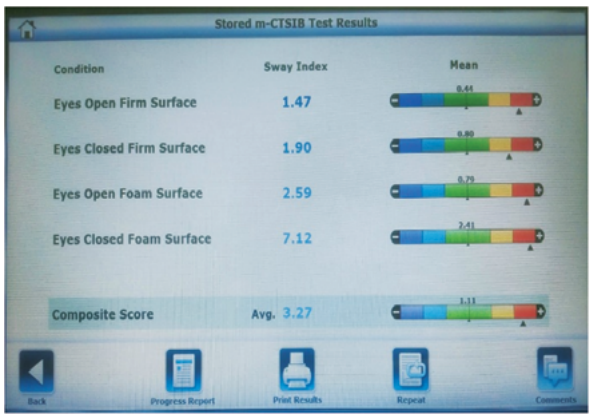
Parts are mainly Power Cable, Power Adapter, Printer Power Cable, USB Cable, CTSIB Indexed Pad, Printer, Printer Stand, Wrench. Optional parts are Free Sway Handles, USB keyboard or mouse, External VGA monitor, Vibro Tactile System.

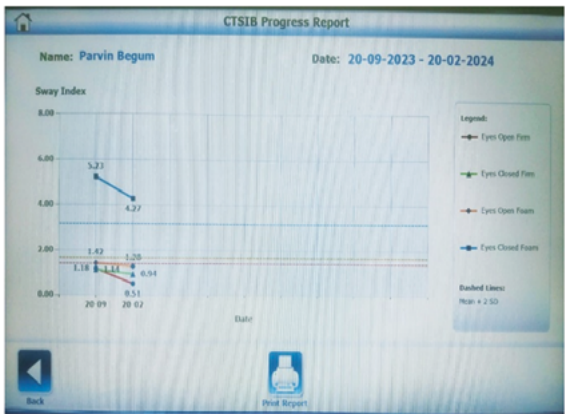
TESTING MODE:

Balance System measures Sensory Integration, Postural Stability, Bilateral Comparison, Limits of Stability, Motor Control and Fall Risk. Each test can be performed with a static or a dynamic platform. For a static test, the device measures the angular excursion of the patient's center of gravity (COG), which is calculated from the patient's height. COG is approximately 55% of height. In a dynamic test, the variance of the platform angle from the platform's level position is measured, as well as degrees of deflection over time. This data illustrates the patient's ability to control balance. Patients should be always supervised while working with theireyes closed, be ready to assist in case they lose their balance.

1. Sensory Integration Tests: Indexed foam pad is used on the platform for the dynamic surface test conditions. To test visual conflict conditions, provide the patient with eyeglasses that create a distorted yet transparent image.

A. Clinical Test of Sensory Integration of Balance (CTSIB): It is a standard test for balance assessment on a static surface. The test assesses how well a patient can integrate sensory information to maintain balance. The result of the CTSIB test is the patient's sway index, which represents the mean absolute deviation of the patient's average position during a test. The higher the sway index, the more unsteady the person was during the test. Six conditions are applied and it measures how well the patient compensates.





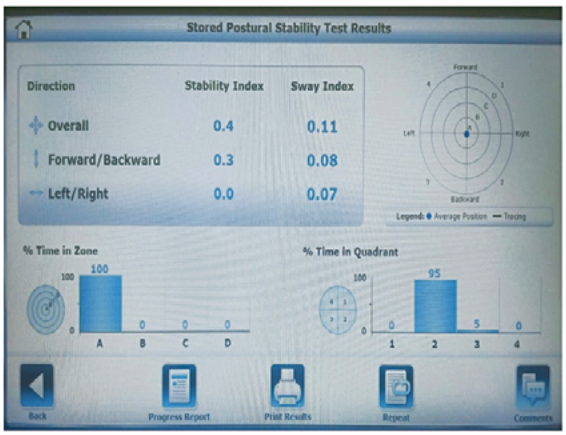
CTSIB conditions:

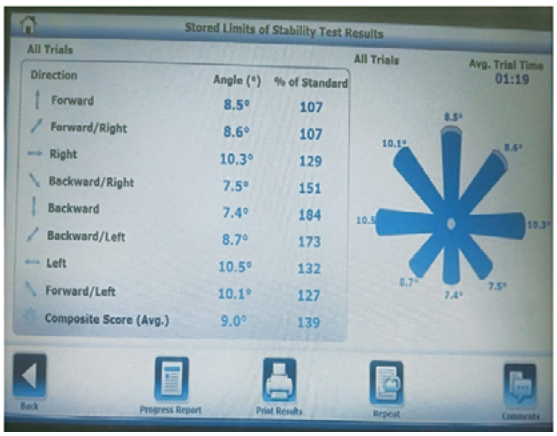
Surface	Visual	Input
Firm	Eyes open	Baseline condition: Input is visual, vestibular, and somatosensory.
	Eyes closed	Evaluates vestibular and somatosensory inputs.
	Conflict	Some visual input but it conflicts with vestibular input. Condition relies on vestibular and somatosensory inputs.
Dynamic	Eyes open	Evaluates somatosensory interaction with visual input.
	Eyes closed	Evaluates somatosensory interaction with vestibular input.
	Conflict	Evaluates the mediation of visual with vestibular and somatosensory inputs.

B. **Balance Error Scoring System (BESS):** In a conventional BESS test, scoring is based on time and number of errors, which requires the evaluator's judgment. With the Balance System SD, time and error counting is replaced with a measure of sway. Errors can be noted,but they do not affect the score.A test consists of three positions on two types of platforms for a total of six conditions.

2. **Limits of Stability (LOS) Test:**It challenges patients to control their center of gravity within the base of support. It measures how far from the center the patient can sway. The angle of sway is the number of degrees from the position of the patient's center of gravity (0 degrees). The estimated COG is 55% of the patient height. This test is a good indicator of motor control within a sway envelope. Poor control, inconsistent, or increased times suggests assessment of lower limb power, proprioception, and vestibular or visual deficiencies.

3. **Postural Stability Test:**This test assesses a patient's ability to maintain a center of balance. It measures how much the patient's position deviates from center and reports the average deviation as the stability index. Therefore, a low score is more desirable than a high score.





4. **Motor Control Test:**This test measures how patients control their center of gravity within a base of support. Like the Limits of Stability test, patients shift their weight to move the cursor from the center target to a blinking target and back as quickly and with as little deviation as possible. The same process is repeated for each of the targets. Targets on the screen blink in random order. Three skill levels allow the targets to be grouped closer together or spread further apart, and the platform setting can be static or dynamic. This test is a good indicator of dynamic control within a sway envelope.

5. **Bilateral Comparison Test:**In this test, the patient stands on one leg in the middle of the platform for a set time and at a set stability level. The patient performs the same test standing on the other leg. Clinicians compare data from each test to determine treatments for the weak leg. Each trial consists of two tests: left leg and right leg. During each trial, patients must hold their position to keep the cursor in the center.

6. **Fall Risk Test:**This test identifies potential fall candidates. The test measures the patient's postural sway velocity to predict risk. Velocity is the speed of an individual's sway as balance is maintained. Test results are compared to age-dependent normative data. A high sway velocity when a patient is attempting to stand motionless suggests a deficit in postural control. This test is conducted with the patient's eyes closed and in a narrow stance (space between two feet is 7.5 cm).

TRAINING MODES

1. **Percent Weight Bearing Training:**In this mode, the platform is static. It displays the percentage of weight-bearing force on a patient'sfoot, ankle, knee, hip, and body side. Targets are set to encourage patients to place weight

inanterior, posterior, medial& lateral movements. The patient sees the axes in green when weight bearing is within targets. The score is the percentage of time the patient was within the target range.

2. **Weight Shift Training:** It allows patients to practice shifting their weight in medial/lateral, anterior/posterior, or diagonal directions. This can be performed with the platform static or dynamic. The user sets the orientation and the target range. The patient attempts to keep the center of gravity indicated by the cursor within the target box. Scoring is a percentage of the net good hits divided by the total target hits.
3. **Postural Stability Training:** In this mode, patients practice specific movement patterns or strategies. Ony one of following two approaches may be selected:

- Targets are placed anywhere on the screen grid. The patient leans and shifts to make the cursor touch each target. The score is the total of touched targets.
- Ring or boundary is set. The patient balances to keep the cursor within the boundary ofthe ring. The score is time within the boundary.

4. **Motor Control Training:** This mode challenges the patient to use the sway envelope, which is therange a person can move the center of gravity (COG) within the base of support. A pattern of targets is displayed. One target blinks. The patient must move the cursor from the center target to the blinking target and back to the center target. Scoring is a percentage of movement outside the sway envelope and measures the precision of the movement. The straighter the movement, the better the stability.
5. **Maze Control Training:** In this mode, the patient follows a sequence of targets through a maze. Patient moves the curser to each target as it blinks but must not let the cursor touch a wall of the maze. Scoring is a percentage of the net good hits divided by the total target hits. All hits outside theboundary are subtracted from the total target hits. This value is the net good hits.
6. **Random Control Training:** In this mode, the patient responds to random movement of a target. The target is a red circle that starts in the center of the grid and moves in random directions. The clinician sets the size of the target and the speed of its movement. The patient moves the cursor to keep it within the target.

MISCELLANEOUS

বিশেষ চাহিদা সম্পন্ন মানুষদের দিবস, খায় না মাথায় দেয়!

ডাঃ পার্থপ্রতিম পান, অধ্যাপক ও বিভাগীয় প্রধান
ফিজিক্যাল মেডিসিন এন্ড রিহ্যাবিলিটেশন

ওরা অন্য। ওরা নিম্ন। ওরা যেন কেমন কেমন। যাদের চার হাত পা সচল, আর যারা নিজেদের খুব বুদ্ধিমান মনে করেন, তারা যখন কোনো সেরিব্রাল পালসি আক্রান্ত শিশুকে দেখেন, খুব জোর ভাবেন আহা রে, বাবা মায়ের কত কষ্ট। আর এরকম শিশুর বাবা মায়েরা কারও বিয়ের নেমন্তন্ন চিঠি পান অনুষ্ঠান হয়ে যাবার পরে, যাতে এরকম শিশু নিয়ে ওই বাবা মায়েরা অনুষ্ঠানের আনন্দ-উৎসবে কোনো অস্বস্তিকর পরিবেশ না তৈরী করতে পারেন।

কিন্তু আপনি বোধহয় জানেন না পৃথিবীতে বিশেষ ভাবে সক্ষম মানুষের সংখ্যা ১৩০ কোটি, মানবজাতির ১৬ শতাংশই হয় শারীরিক বা বুদ্ধিগতভাবে কমজোরি। ভারতের সঠিক হিসেব আমাদের হাতে নেই, কারণ শেষ আদমসুমারী হয়েছিল ২০১১ সালে, কিন্তু এটা নিশ্চিত এ দেশে এমন মানুষের শতাংশ আরও বেশি। এদের প্রতি আমাদের সহমর্মিতার অভাব যথেষ্ট, অথচ আমরা কেউ বলতে পারবো না আমাদের বাড়ির পরের শিশুটি সেরিব্রাল পলসি, অটিজম, হিমোফিলিয়া বা থ্যালাসেমিয়া নিয়ে জন্মাবে না। কোভিড পরবর্তী সময়ে স্ট্রোক বাড়ছে, কমবয়সে শরীরের একটা দিক অচল হয়ে যাচ্ছে। রাস্তাঘাটে প্রতিদিন বাড়ছে দুর্ঘটনা, যার ফলে হাত পা ভাঙা, এমনকি স্পাইনাল কর্ডে চোট, এবং তার ফলে সম্পূর্ণ প্যারালাইসিস আকছার হচ্ছে। কেউ অচল হচ্ছেন নানারকম বাতে, কেউ নানারকম স্নায়ুর অসুখে। আমরা কি নিশ্চিত আমার, আপনার ক্ষেত্রে এরকম কোনো কিছুই ঘটবে না? অতটা নিশ্চিত না হলে বিশেষ ভাবে সক্ষম মানুষদের প্রতি আমাদের দৃষ্টিভঙ্গি বদলানো আশু প্রয়োজন ।

নামে মাহাত্ম্য বেড়েছে। আগে যাদের পঙ্গু বলা হত তাদের নতুন নাম হয়েছে দিব্যাঙ্গ। ১৯৯৫ এবং ২০০৭ সালের আইন পাল্টে ২০১৬ সালে ভারতে এসেছে তাদের জন্য নতুন আইন। আইনে সুযোগের সাম্য, সব সরকারি এবং বেসরকারি ক্ষেত্রে মর্যাদা, তাদের প্রতি কেউ অমর্যাদা করলে আইনি ব্যবস্থা নেওয়ার রাস্তা, এমন অনেক ভালো ভালো কথা আছে। কিন্তু বয়স্ক বা বিশেষ ভাবে সক্ষম মানুষরা যাতে রাস্তাঘাটে ভালোভাবে চলতে পারেন তার ব্যবস্থা কি হয়েছে? কোনো ফুটপাথ বা গলি-রাস্তা কি হুইলচেয়ারে চলার উপযুক্ত? বেশিরভাগ সরকারি অফিস বা ব্যাংকে সিঁড়ির পাশে লিফটের ব্যবস্থা আছে? রাস্তায় তাদের জন্য নির্দিষ্ট টয়লেট আছে? অথবা, সাংস্কৃতিক কর্মকান্ডে তারা সহজে যোগ দিতে পারেন? একটা উদাহরণ দিই -শিলিগুড়ি শহরের একমাত্র উপযুক্ত মানের মঞ্চ - দীনবন্ধু মঞ্চ, সেখানে কোনো লিফট নেই, মানে বিশেষ ভাবে সক্ষম এবং বয়স্ক মানুষদের ধরেই নেওয়া হচ্ছে ভালো গান, সিনেমা, নাটক বা আবৃত্তি উপভোগ করার যোগ্যতা এবং অধিকার নেই ।

তার মানে দাঁড়ায়, আমাদের কর্তাদের মুখের কথা, আইনের কথা আর কাজের মধ্যে আকাশ-জমিন ফারাক। ২০২০ সালে কেন্দ্রীয় সরকার MCI বা মেডিক্যাল কাউন্সিল অফ ইন্ডিয়া ভেঙে দিয়ে ন্যাশনাল মেডিক্যাল কমিশন (NMC) তৈরী করে । শুরু থেকেই এই মেডিক্যাল কমিশন এমন অনেক সিদ্ধান্ত নিয়েছে যেগুলি বিতর্কের জন্ম দিয়েছে , এবং কোনো কোনো ক্ষেত্রে কমিশন সিদ্ধান্তগুলি প্রত্যাহার বা স্থগিত করতে বাধ্য হয়েছে। সম্প্রতি তারা তিনটি বিষয় MBBS এর পাঠ্যক্রম থেকে বাদ দিয়েছে - রেস্পিরেটোরি মেডিসিন, ইমার্জেন্সি মেডিসিন এবং ফিজিক্যাল মেডিসিন ও রিহ্যাবিলিটেশন। এই সিদ্ধান্ত ওয়াকিবহাল মহলকে আশ্চর্য করেছে। কোভিড দেখিয়ে দিয়েছে Respiratory Medicine বা Chest Medicine এর গুরুত্ব। তাছাড়া,পৃথিবীর ২৮ শতাংশ যক্ষা আক্রান্ত রুগী ভারতবাসী, যাদের চিকিৎসা করতে গেলে ফুসফুসের রোগ সম্পর্কে সম্মক ধারণা থাকা উচিৎ নব্য ডাক্তারদের।

আর দ্বিতীয় বিশ্বযুদ্ধে আহত অসংখ্য পঙ্গু মানুষের সব ধরণের চিকিৎসা, ওষুধ এবং বিভিন্ন ধরণের থেরাপির সমন্বয় করতে প্রয়োজন হয়েছিল চিকিৎসা শাস্ত্রে নতুন বিভাগের। সেই বিভাগের নাম Physical Medicine & Rehabilitation, বিভিন্ন জন্মগত অসুখ, দুর্ঘটনা এবং প্রায় সমস্ত দীর্ঘমেয়াদি রোগ থেকে মানুষ যখন নানা রকমের অক্ষমতার শিকার হয় তখন ফিজিক্যাল মেডিসিন ও রিহ্যাবিলিটেশন বিভাগের চিকিৎসকরা অসুস্থ মানুষের সক্ষমতা ফিরিয়ে আনতে আধুনিক চিকিৎসা বিজ্ঞানের জ্ঞানকে কাজে লাগান-যাতে মানুষের Quality of life বা জীবনের গুণমান উন্নত হয়, মানুষটি যেন কারও উপর নির্ভরশীল না হয়ে নিজের কাজ নিজে করতে পারেন এবং সম্ভব হলে কোনো কাজ করে সমাজে অবদান এবং পরিজনদের প্রতিপালন করতে পারেন। সারা ভারতে এই মুহূর্তে এরকম বিশেষজ্ঞের সংখ্যা মাত্র হাজারখানেক। এই দেশের অন্তত ২০ কোটি মানুষ বিশেষ ভাবে সক্ষম, তাহলে প্রতি দুলক্ষ রুগীর জন্য একজন এই বিষয়ের ডাক্তার আছেন। চিত্রটি ভয়াবহ নয়? সেই কারণেই স্নাতক স্তরে মানে, MBBS পড়াকালীন বিশেষ চাহিদা সম্পন্ন রুগীদের কীভাবে চিকিৎসা করতে হয় তার প্রাথমিক ধারণাটুকু থাকা খুবই জরুরি । এই প্রেক্ষিতে ন্যাশনাল মেডিক্যাল কমিশনের স্নাতকস্তরে ফিজিক্যাল মেডিসিন ও রিহ্যাবিলটেশনকে পাঠ্যক্রম থেকে বাদ দেওয়ার সিদ্ধান্ত হঠকারী, বিজ্ঞান ও মানবতা বিরোধী এবং নিঃসন্দেহে বেদনাদায়ক।

তেসরা ডিসেম্বর বিশেষ চাহিদা সম্পন্ন মানুষদের নিয়ে আন্তর্জাতিক দিবস পালন হয় । কিন্তু তাঁদের প্রতি সুস্থ সক্ষম মানুষদের দৃষ্টিভঙ্গি না বদলালে, ক্ষমতা যাদের হাতে তারা আরেকটু সক্রিয়ভাবে ওদের পাশে না দাঁড়ালে এবং চিকিৎসার পাঠ্যক্রমে ওদের চিকিৎসা-সংক্রান্ত বিষয়কে যথেষ্ট গুরুত্ব না দিলে, সব আইন, সব উৎসব, সব দিবস-পালন অশ্বডিম্ব প্রসব করবে।

Birth of a Dream: Early Years of Physical Medicine and Rehabilitation in West Bengal with Global and Indian context

Dr Siddhartha Sinha Ray
Assistant Professor, Dept of PM&R, IPGME&R, Kolkata

Times were changing. World War II had just finished a few years ago leaving behind an unthinkable amount of loss and destruction to deal with. Doctor Howard A Rusk, an American Physician was putting all his efforts with the authority to set up a dedicated Rehabilitation Unit at New York University to attend to the bruised, battered and disabled war heroes of the country. On the other hand, at Rochester, Minnesota another Doctor called Frank H Krusen was working tirelessly for almost quarter of a century in the field of Physical Medicine, getting it the required focus and attention it deserves. These two legends would go on to collaborate with exchange of ideas leading to birth of Physical Medicine and Rehabilitation as a distinct Specialty with acceptance spreading across the globe, opening patient care and speciality training course in this subject at various Institutions. Among all those hustle and bustle, a country far away was ready to spread its wings again after leaving behind almost 200 years of shackles. India was gaining independence. India was ready to fly.



Dr Howard A Rusk



Dr Frank H Krusen

After the initial euphoria of independence was over, administration of our country focused on nation building, supported by able shoulders of some visionaries with exceptional administrative skills and foresight. One of them was Doctor Bidhan Chandra Ray, the 2nd Chief Minister of Bengal. A genius physician of almost mythical stature, he took to administration like a fish in water. Like a sapling requires nurturing of light, air and water, he was the perfect patron for a nascent subject to grow into a formidable force.



Dr Bidhan Chandra Roy

Dr Roy being an wonderful doctor, used to take time out of his busy schedule as the chief minister and tended to patients in need. He had particular affinity towards benefit of child patients. He used to frequently visit the Polio clinic and Hospital at Beleghata and was deeply concerned about their disabilities at this tender age. Being a visionary doctor, he understood the need for their holistic rehabilitation beyond the purview of mere pharmacological management. Probably those concerns of his seeped into the minds of two doctors who used to work there, initiating a chain reaction to ultimately culminate years later in what Bengal PMR is today.

Dr Sudhir Kumar Banerjee and Dr Sanat Kumar Sarkar were both born in the tumultuous years of 1920s, when nationalist movements for complete freedom were shaping up rapidly. They both completed their MBBS from the famed Medical College Kolkata just around independence within a gap of few years.

Dr Sudhir Kumar Banerjee started working as a surgeon initially for a few years. But, then he felt the need of Rehabilitation in holistic management of disabled patients. He went to England and obtained a Diploma in Physical Medicine (D. Phys Med) in the year 1956.

Dr Sanat Kumar Sarkar, after passing out from Medical College Kolkata in the year 1949, started working at what is known today as B C Roy Polio Clinic and Hospital and came in contact of the man himself, Dr B C Roy. Deep thoughts seeded inside the mind of Dr Roy, probably germinated in Dr Sarkar, which led him to travel to England almost at the same time as Dr Banerjee did. Finally he obtained Diploma in Physical Medicine (D. Phys Med) in the year 1958 and returned to Kolkata.



Dr Sanat Kumar Sarkar

Then, time came for the Historic moment. By that time India had opened its first Post Graduate Institute for MD courses, Institute of Post Graduate Medical Education and Research in 1957 at famed premise of the then 250 year old Presidency General Hospital, renamed in 1954 as Seth Sukhlal Karnani Memorial Hospital. Under active influence and guidance of Dr Bidhan Chandra Roy, Dr Sanat Kumar Sarkar, the pioneer opened the School of Physical Medicine at this Institute and thus the journey of Bengal PMR begun.


Dr Mary Verghese

Times were changing again. By the time the School of Physical Medicine came into being, Dr Mary Verghese had a near fatal accident that changed her life. Being disabled and confined to wheelchair, the aspiring gynaecologist understood the true meaning of Rehabilitation. After a course in Australia she went for a fellowship to New York at the Rusk Institute of Physical Medicine and Rehabilitation to learn from the man himself, Doctor Howard A Rusk. After Returning to India she joined Christian Medical College, Vellore in 1962 and in 1966 opened a fully fledged Rehabilitation Institute there, arguably first of a kind in India.

Slowly a number of pioneers started their work in their respective states. Apart from Bengal and Tamil Nadu, Dr P B Menon in Trivandrum, Kerala, Dr B P Yadav at Safdarjung Hospital, Dr A K Mukhejee at Artificial Limb Centre, Dr V V Gujral and Dr K Dhamija at Kalawati Saran Hospital and Dr S K Varma at AIIMS all in New Delhi started their contributions in this field.

Then the time came to form a national body. So, Indian Association of Physical Medicine and Rehabilitation was formed in 1972 under Society Registration Act, 1860 vide Registration number S/18608 with Dr Mary Verghese being the first President and Dr B P Yadav, the first Secretary.


Dr Sudhir Kumar Banerjee

Dr Sudhir Kumar Banerjee, after returning from England worked at B C Roy Polio Clinic and Hospital. After that he was associated with Eastern Railway Orthopaedic Hospital, K P N R group of Hospitals, now known as National Institute of Locomotor Disability (Divyangjan) and also with Institute of Child Health and many other institutes in different phases of his career. But, he never lost sight of ultimate goal that is the betterment of the subject, fraternity and society as a whole getting the benefit of it. He was associated with national body initiative from the start and was elected as third President of Indian Association of Physical Medicine and Rehabilitation in 1970s.


Dr Ashim Kumar Biswas

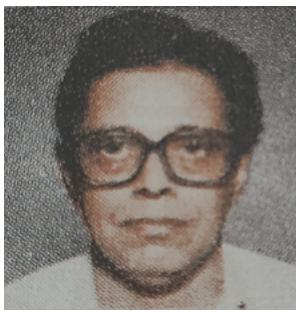

Dr Nanigopal Sarkar

In his endeavour Dr Banerjee found many others fellow doctors to work hand in hand for growth of Physical Medicine and Rehabilitation. Apart from Dr Sudhir Kumar Banerjee and Dr Sanat Kumar Sarkar, Dr Ashim Kumar Biswas, Dr Nanigopal Sarkar, Dr Ashok Sengupta, Dr K S Bose, Dr Bijan Bhusan Sarkar had started their work in this field.


Dr Pradip Kumar Mallick

Around the same time a young doctor working in peripheral Bengal met with a horrific car accident that confined him to wheelchair in the year 1974. But, he was not the one to be bogged down by fate. Extra ordinary story of Dr Mary Verghese and her triumph over disability, chronicled in the book "Take My Hands" must have inspired him to think ahead of his disability and see his true potentials. He went to Tamil Nadu and got a Post Graduate Diploma Degree in Physical Medicine and Rehabilitation from Madras Medical College in 1978. His name is Dr Pradip Kumar Mallick. He was a enthusiastic and active member in the field of Rehabilitation in West Bengal and worked in NIOH (now NILD). So, inspiring was his story that renowned Bengali film maker Shree Tapan Sinha made a film "Wheelchair" based on his story of winning over disability with legendary actor Shree Soumitra Chatterjee essaying his character.

All of their work paid off finally in 1979. India's first MD course in Physical Medicine and Rehabilitation started in the School of Physical Medicine. By that time, Dr Sanat Kumar Sarkar had transferred to different Institution after nurturing the seed he sowed for 17 years. The baton had passed from Dr Sanat Kumar Sarkar through Dr Ashim Kumar Biswas to Dr Nanigopal Sarkar as the Head of the Department.


Dr Debapriya Banerjee

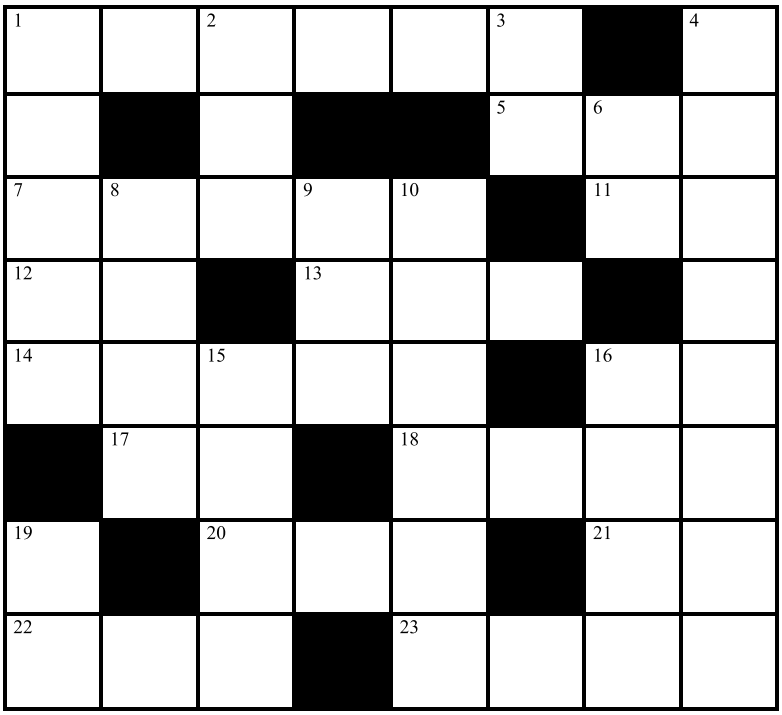
When the first MD Physical Medicine and Rehabilitation course began that year, a young doctor in his 30s, who had done his MBBS from Nil Ratan Sarkar Medical College, joined as a First year Post Graduate Student. Dr Debapriya Banerjee etched his name forever in the history of Indian Physical Medicine and Rehabilitation as the first MD in Physical Medicine and Rehabilitation, when he passed in 1981. Dr Debapriya Banerjee, popularly known as Dr D P Banerjee laid the path for all of us in the future to come. Later in his tenure as Head of the Department of School of Physical Medicine, he nurtured many young doctors to their dream of becoming a physiatrist.

1980 was a significant year for West Bengal physiatrist fraternity. For it was the year when West Bengal branch of IAPMR was started under Dr Sudhir Kumar Banerjee, as president

and Dr Nanigopal Sarkar, as Secretary. That year they organised the national conference of IAPMR at NIOH (now NILD) with Dr Sudhir Kumar Banerjee and Dr K S Bose as the Chairman and Dr Nanigopal Sarkar and Dr Ashok Sengupta as Organising Secretary.

What started in a very modest way in the initial years of independence with heartfelt efforts from the pioneers of Bengal PMR and able guidance from none other than Dr Bidhan Chandra Roy, with constant nurturing and growth has now become a giant tree of International repute exploring numerous branches of cutting edge rehabilitation after the 75 years of independence. Let the future become even more bright and shining. Let the empathy for patients and quest for knowledge be our guiding light in the path of excellence.

CROSSWORD



Across:-

1. Clinical score in a condition with inflammatory back pain.
5. Quantity of pain
7. The sound wave of frequency more than 20 KHz is called Ultra _____ wave.
11. An Orthosis for Lower Limb. (Abbr)
12. Blood group
13. Reflex to test a Cranial nerve
14. There is a machine of 3 classes in human body.
16. A complication of spinal cord injury. (Abbr)
17. Routine Examination. (Abbr)
18. Metal/Medicine
20. Treatment in acute inflammatory swelling.
21. Cardiac emergency.
22. The PMR book.
23. Causative organism of Hemolytic uremic Syndrome. (Abbr)

Down:-

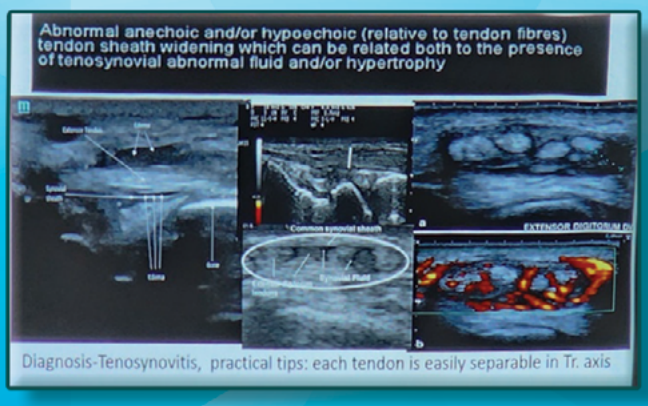
1. Problem in ganglia. Problem in coordination.
2. Source of Vitamin D
3. Parenteral Route. (Abbr)
4. Exercise for strong muscle.
6. Transfemoral amputee. (Abbr)
8. Test for TFL
9. Antibody test in allergic Asthma. Serum ____ level.
10. Decay of spine or tooth.
15. This type of one way Road leads to heart. Sometimes act as a portal to Liver also.
16. ____ modification is an essential part of rehab in disabled persons after discharge.
19. Radiology Imaging/ Coagulation study. (Abbr)

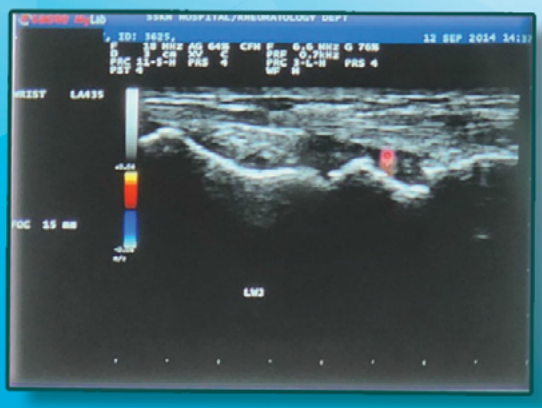
Pre Conference News





We've just wrapped up a workshop on Ultrasound of Inflammatory Arthritis and USG-guided Motor Nerve Block—the first of its kind in our state at NRS Medical College, Kolkata on 21/03/24. Notably, it's also the inaugural pre-conference workshop for WBPMRCON. The workshop delved into the significance of musculoskeletal USG concerning inflammatory arthritis. Later on, the Department of PM&R and Radiology led a hands-on session on differential nerve block for managing spasticity.





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Defza® 6/12 24/30
Deflazacort Tablets
The Most Effective Corticosteroid
Mext 7.5 10 15
OXCQ 200 300 400
Hydroxychloroquine Tablets
Lefuma 20 10
Leflunomide Tablets
WALLACE

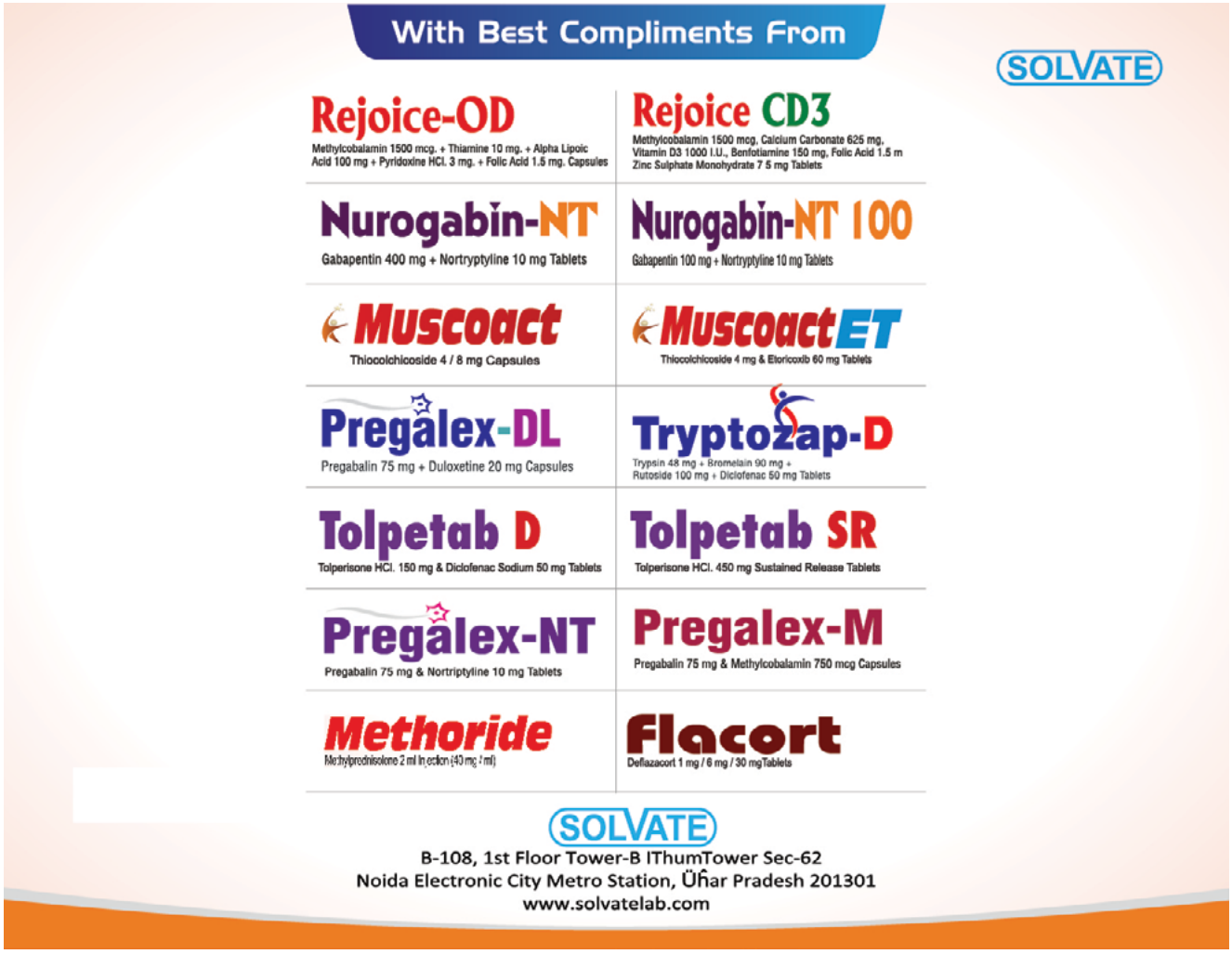
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CROSSWORD

Answer / Solution

1B	A	2S	D	A	3I	*	4I
A	*	U	*	*	5V	6A	S
7S	8O	N	9I	10C	*	11K	O
12A	B	*	13G	A	G	*	T
14L	E	15V	E	R	*	16H	O
*	17R	E	*	18I	R	O	N
19C	*	20I	C	E	*	21M	I
22T	A	N	*	23S	T	E	C

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Tacva
Tacrolimus

AZR
Azathioprine

Adalipca
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Rituxipca
Rituximab