Abstracts–Oral

MEMBER PAPER 01-21

0- 1 Comparison of Quality of Life of Caregivers of Children With Disabilities And Without Disabilities

Jain Shewta
Department of PMR
VMMC & Safdarjung Hospital, New Delhi

Introduction: Caregiving for child requires a lot of efforts and resources and in children with disability, this demand increases a lot. This increasing effort has an implication on the health and quality of life of the caregiver caring for that child. A study was planned to compare the quality of life of caregivers of children with disabilities and those having children without disabilities.

Material and Method: After institutional ethics committee approval, a cross sectional study was conducted at the department of PMR, Lady Hardinge Medical College and associated Hospitals from October 2011 to October 2012. After taking informed consent, the caregivers attending PMR OPD having children with disabilities and without disabilities were included in the study as case and control group respectively. Caregivers with children of 3 years and above were included and those having more than one child affected were excluded. A pre-structured proforma was filled which included demographic details of child and caregiver along with the quality of life questionnaire using WHOQOL-BREF scale having 26 questions.

Result: During one year of study period, 200 caregivers were included in each group and were analyzed. Appropriate statistical analysis was done using SPSS software. Majority of caregivers were mothers in the age group of 25-35 years with children in 3-7 years age group with female preponderance, having education upto secondary class with upper lower socioeconomic status with urban living. There were statistically significant lower scores in all six domains of quality of life using WHOQOL-BREF scale in caregivers having children with disabilities as compared to control group.

Conclusion: Policies should be framed for providing respite services to caregivers of children with disabilities in the form of counseling, support/peer group formations, meetings and regular comprehensive programs to provide education of disabling conditions and support in the institutions/ hospitals.

0- 2 Levoflaxacin A First Line Drug in the Prevention and Management of Lower Extremity Amputation Residenal Limb Infeetion in Ruval North India Papulation

Sudhir Mishra
Asst. Prof. KGMU. Lucknow

Background: Amputated lower limb stump infection is the most common complication accounting 53.5% in India. There are very few published studies on preventive and therapeutic management of these infections.

Methods: This cross sectional retrospective study include all thepatients presenting with lower-limb amputated stump infectionbetween 2010 to 2015. Confirmation of diagnosis were done by clinical, radiological, hematological and microbiological culture of wound and treatment was started based on sensitivity report.

Result: This study include sixty two patients with eighty lower-limb amputated stump infection. Sinus tract (54.8%) was the most common presentation of stump infection. Pseudomonas Aeruginosa (39%), was the most common cultured pathogen and Piperacillin + Tazobactum (82.25%), followed by Imipenem (75%) and Levofloxacin (58.75%) were the most sensitive antibiotic.

Conclusion: In India where more than 60% population live in rural area, peripheral health centers are the primary mode of healthcare services. Levofloxacin can be given as first line drug therapy in prevention and management of lower limb amputated stump infection.

Key words: lower limb amputated stump infection, Levofloxacin, first line drug therapy

0-3 Effects of Botulinum Toxin In Cervical Dystonia and Impact on Quality of Life

Sucheta Saha, Senior Resident,
Department of PMR, VMMC &Safdarjung Hospital, New Delhi.

Introduction: Cervical dystonia (CD) is a disabling illness that interferes with activities of daily living and also has significant adverse impact on patient's physical and mental well-being. Botulinum toxin injection is an effective treatment for CD. The present study is

designed to evaluate whether the impact of Botulinum toxin injection also extends to change in the quality of life (QoL) of patients along with the motor symptoms.

Materials And Method: It is an ongoing prospective observational clinical study being done in the Department of Physical Medicine of Rehabilitation, VMMC and Safdarjung Hospital, New Delhi, presently including two interesting and rare cases of secondary CD. The first case is 'Neurodegeneration with brain iron accumulation' (NBIA) and the other case is secondary to use of antidepressant drugs. Dose of injection Botulinum toxin A (Botox) was determined by clinical examination of the involved muscles. Assessment of the patients was done Pre-injection (0week), Post-injection (2weeks) and Follow-up (6weeks). Both the patients are still under follow-up.

The assessment tools are-

1. Fahn-Marsden Dystonia Severity Scale
2. Cranio-cervical Dystonia Questionnaire-24 (CDQ-24)
3. Cervical Dystonia Impact Profile-58 (CDIP-58)

Results: Both the patients showed improvement in all the scores, in severity of dystonia, as well as in QoL. The patients were better post-injection both clinically and symptomatically. Statistical analysis showed statistically significant improvement in pain and discomfort subscale of CDIP-58 at 6weeks (p=0.03). There was also a statistically significant change in psychosocial subscale of CDIP-58 while comparing follow up results at 2weeks and 6weeks (p=0.033).

Conclusion: Botulinum toxin A is a safe and effective treatment of cervical dystonia which can lead to improvement in dystonic symptoms as well as the QoL of patients.

0-4 Lateral Closed Wedge Osteotomy for Cubitus Varus Deformity

Jagannatha Sahoo

Department of PMR, AIIMS, Bhubaneswar

Background: Cubitus varus is a commonest complication of paediatric supracondylar humerus fracture. These deformities are most commonly result of malunion, however avascular necrosis of trochlea or growth arrest of medial physis may also cause the deformity. Cubitus varus mostly presents as cosmetic deformity. Lateral closed wedge osteotomy is a commonly accepted method for the correction of the cubitus varus deformity. The fixation of osteotomy is required to prevent loss of correction achieved as well as preservation of the functions. The fixation of the osteotomy by the two screws and figure of eight wire is stable enough to maintain the correction achieved during surgery. In this prospective study we evaluate the fixation method by the two screws and figure of eight wire.

Materials and Methods: Twenty-three cases of the cubitus varus deformity following supracondylar fractures of the humerus were operated by Lateral closed wedge osteotomy during February 2010 to June 2013. The mean age of the patients at the time of corrective surgery was 10.5 years (range 7-16 years). The osteotomy was fixed by two screws with figure of eight tension band.

Result: The mean follow-up period was 3 years (range10 months to 4.4 years). The results were assessed as per Morrey criteria. Twenty one cases showed excellent results and two case showed good results.

Conclusion: The fixation method by the two screws and figure of eight wire offers best results and is enough to treat most of the cubitus varus cases with minimal complication.

Keywords: Cubitus varus deformity, fixation technique, lateral condylar wedge osteotomy

0-5 Peripheral Nerve Block and Intra-Articular Steroid Injection Of Shoulder Joint In Complex Regional Pain Syndrome 1 – Our Experience

Jungindro Singh Ningthoujam

Dept. of Neurological Rehabilitation, NIMHANS, Bangalore

Introduction: As we undergo rehabilitation of different cases of neurological conditions, we often come across presence of CRPS I (previously called Reflex Sympathetic Dystrophy or Causalgia). There are no definite guide lines for the treatment of CRPS in literature. Different authors have different approach of treatment like physical therapy, behavioral measures, and use of antidepressants, anticonvulsants, or transcutaneous electrical nerve stimulation, regional anesthesia with intravenous local anesthetics, guanethidine, reserpine, bretylium, nonsteroidal anti-inflammatory drugs or calcium-regulating drugs, or blockade of sympathetic activity by ganglion block, epidural analgesia or peripheral nerve blocks. We present here the outcome of our method of treatment with peripheral block of individual nerves (median, radial and ulnar) in and around the wrist joint and intra-articular steroid injection of shoulder joint.

Materials & Method: Patients having features of CRPS 1 of any cause and satisfy Budapest clinical diagnostic criteria attending the outpatient service or admitted in Department of Neurological Rehabilitation, NIMHANS from September 2016 till date and fulfilling the inclusion and exclusion criteria are included.

Inclusion Criteria: 1.CRPS 1 of any cause. 2. Age between 18 to 70 years. 3. Patients who are willing to participate in the study. 4. Duration of disease of within 12 months.

Exclusion Criteria: 1. Patient who have history of shoulder pain on the same side before the precipitating event. 2. Patient who have taken any form of treatment for CRPS. 3. Patient with uncontrolled diabetes. 4. Patient with altered consciousness or higher mental function

Methodology: Patients after taking written consent are given a single dose of injection atthe shoulder joint with 40mg methylprednisolone mixed with 5ml of 2% lignocaine and 5ml of sterile water. For peripheral nerve block, injections are given at 4 different sites. Each site is injected with 10mg methylprednisolone mixed with 1ml of 2% lignocaine and 1ml of sterile water.

The primary outcome measurement is overall reduction in pain measured by Visual Analogue Scale. Secondary outcome measurements are improvement in passive ROM of the joints and reduction in the swelling of the hand. In shoulder joint, movement are seen in four different planes (flexion, abduction, internal and external rotations) and for other joints (elbow, wrist, MCPs and IPs) ROM is seen in single plane i.e. flexion and extension. A baseline assessment is taken before the injection and starting the exercise program. Reassessment of the outcome measures are done after 1 week.

Result: It is an ongoing study and the final result and conclusion shall present at the conference platform.

Disclosure: The study is a non-funded study and holds no conflict of interest.

0-6 Osteoporosis; Do We Need To Think Beyond BMD?

Soni P, Senior Resident

Department of PMR, AIIMS, New Delhi

Introduction- Fracture is the most concerned clinical outcome of osteoporosis, but recently it has been found that most fragility fracture occurs in patients with either normal or osteopenic bone scans. This warrants us to look for factors beyond BMD alone for bone strength. Country specific WHO-FRAX has emerged as a promising and validated tool to assess probability of fragility fracture.

Material and Method- In this Cross sectional study, eighty patients with BMD prescribed elsewhere or in our OPD were recruited. Seven were excluded on the basis of age less than 40 years. Demographic data, BMD test report and risk factors included in WHO-FRAX assessment tool were recorded for remaining 72 patients. Ten year probability of major osteoporotic fracture and hip fracture was assessed using country specific WHO-FRAX.

Result and Conclusion of this ongoing study will be analyzed and discussed during paper presentation.

0-7 Sexual Dysfunction In Women With Traumatic Spinal Cord Injury and Its Impact on Quality of Life: An Indian Scenario

Shipra Chaudhary

Dept of PMR, PGIMER & Dr RML Hospital, New Delhi

Introduction: Sexuality is an important aspect of a person's life. Spinal cord injury (SCI) has an immediate impact on the emotional and physical aspect of sexuality. Most studies done on this issue are in western world are not representative of countries like India. Asian countries differ in socio-cultural and religious beliefs about sex & sexuality. Very few Indian studies to address the issues of women with SCI.

Aims & Objectives: To assess the impact of sexual dysfunction in women with SCI.

Methodology: It was a cross-sectional study. Women with SCI > 1 year duration living with their partner and sexually active were interviewed using semi-structured proforma: demographic profile, injury profile, sexual function & ISCoS female sexual dysfunction data set & Functional status (SCIM) and Quality of life (WHOQoL Bref)

Results and Discussion: Total Number of subjects enrolled in the study was 21. Mean age: 28.6±2.4 (24-32), mean duration of Injury in years: 2.69±0.8 (1.2-4.2) & majority were complete paraplegia. QoL

Domain score was low for all four domains and Overall quality of life was poor with significant effect of sexual dysfunction on QoL score. Intimacy and maintaining self esteem was the main reason to persuing sexual activity. In most SCI women, sexual function is severely affected, leading to a negative impact in quality of life & satisfaction with health. Factors associated with a higher sexual satisfaction include incomplete injury, paraplegia, higher socioeconomic status & higher SCIM score. Improvement in sexual function may improve QoL. However achieving independence and managing complication is the primary concern for majority.

Conclusion: SCI has a negative impact on sexuality & sexual function. Improving sexual function may improve quality of life in women with SCI

0-8 Knowledge and Practice of Nurses Towards Prevention and Care of Pressure Ulcer and Associated Factors In India –A Cross Section Study

Neha Singh

Dept of PMR, PGIMER & Dr RML Hospital, New Delhi

Introduction: Despite the existence of international guidelines and extensive evidence regarding their cause and prevention, Pressure Ulcer (PU) still occur in significant numbers. Management of hospital-acquired PU is an essential aspect of nursing practice that requires knowledge of risk assessment, prevention, identification and treatment strategies. Despite nurses' positive attitudes towards PU prevention, various studies have revealed a gap between theory and practice.

Aims & Objectives:To assess nurses' knowledge of Pressure Ulcer care and management and identify knowledge gaps and barriers affecting appropriate care of PUr.

Methodology: A multi-centric cross sectional study conducted from April – August 2016. Nurses working in a tertiary care hospital and willing to participate in the study completed a semi structured proforma and Pressure Ulcer Knowledge Test (PUKT) comprising of 47-items about PU prevention (33), staging (7), and wound description (7).

Results & Discussion: Total number of nurses enrolled was 360, response rate of 67 %. Male: female = 1: 6.5, mean age (Yrs): 42.5 ± 10.49 (21-59). A satisfactory percentage of participants performed better in the questions related with prevention of PU. However inadequate knowledge was demonstrated for wound and ulcer. This study highlights concern about nurses' knowledge gap of PU care and prevention. Being employed in an organization that monitors pressure ulcer care does not affect this knowledge.The dissemination of knowledge about PU prevention among nurses was found to be influenced by barriers related to the use of guidelines, lack of staff and lack of time.

Conclusion: Nurses' knowledge regarding the usefulness of measures to prevent and manage pressure ulcers seems to be inadequate. Adequate dissemination of PU information seems a prerequisite to improve the quality of PU care & prevention.

0-9 Fibromyalgia... Underdiagnosed or Overdiagnosed..... An Afterthought - a Case study.

Anne Mary John

Dept of PMR, Pushpagiri Medical College, Thiruvalla, Kerala

Background: Fibromyalgia has been fairly an underdiagnosed condition till recently. But nowadays, it is frequently being diagnosed and the symptoms can be alleviated to some extent. But is there a possibility of over diagnosing chronic pain syndromes without proper exclusion of all the possible causes?

Material and method: This is a case study of a 49 year old lady who came to the PMR OPD with generalised aches and pains for more than 3 years duration. She also had history of an IVDP lumbar region, conservatively managed about 4 years back. She had been to all the possible speciality doctors including physician, rheumatologist, orthopaedician and neurologist. With a primary diagnosis of possible chronic pain disorder, she had been treated with NSAIDS and Tricyclic antidepressant drugs. On examination she had all tender points and 2 trigger points in the gluteal region. Considering all these things a diagnosis of chronic pain syndrome was about to made, till a calcium level of 13.4mg/dl was noticed. On further probing, she gave history of bladder stone. And that was the turning point to the right diagnosis.

Result: Further work up revealed hyperparathyroidism.

Conclusion: Fibromyalgia should be a diagnosis of exclusion. Hyperparathyroidism is a potential treatable mimicker which should be identified without delay.

0-10 Effects of an Endurance Activity on Cardiac and Metabolic Markers in Persons with and without Spinal Cord Injury - a Comparative Study

Henry Prakash

Department of Physical Medicine and Rehabilitation- CMC Vellore

Background: Persons with spinal cord injury (SCI) have impaired autonomic balance, which could possibly influence their metabolic parameters and cardiac functions when they engage in intense physical endurance activities. The presence or the extent of such alterations in persons with SCI has not been evaluated in detail so far.

Objective: To evaluate whether cardiac and metabolic profiles of persons with paraplegia differ from those of healthy adults participating in a long distance physical activity.

Design: Prospective observational study

Setting: The Chennai Marathon held on 7th December 2014 in Chennai

Methods: 14 persons with paraplegia and 15 non-SCI adults all of whom had voluntarily registered to compete in the Chennai marathon 2014 consented to be part of this study. The persons with paraplegia used manually propelled tricycles to compete in races ranging from 10 kilometres (km) to 42.195 km. Their anthropometric parameters, body temperature (To), working heart rate, venous blood samples for serum sodium, potassium and cardiac troponin T were obtained before and after the event. All these values were compared with the non-SCI volunteers who participated in the same marathon.

Results: Persons with SCI had significantly higher baseline cardiac Troponin-T values (Mean 19 pg/L, SD 17.86) when compared to persons without SCI (5.62 pg/ L, SD 2.73), with a mean difference (MD) of 13.28 (95% CI 4.24, 22.52). Estimation of post-race blood samples showed that the magnitude of elevation in cardiac Troponin values with the endurance activity was did not differ between persons with and without SCI, mean difference of change from baseline -23.85 (95% CI -49.03, 1.33). There was a significant difference in To, Na, K levels between the groups. Average heart rate values did not differ significantly between the groups.

Conclusion : Persons with SCI have higher baseline cardiac Troponin-T levels than persons without SCI. The metabolic response of persons with SCI during long distance endurance activity varies significantly from those without SCI.

Key words: paraplegia, marathon, physical activity, physiological changes

0-11 A Study On The Metabolic Cost Of Below Knee Amputees During Crutch Walking In Pre Prosthetic Phase, Walking With Prosthesis And Comparison With Normal Subjects

Madhusree Sengupta, Senior Resident (PMR)

National Institute for Locomotor Disabilities (Divyangjan), Kolkata

Introduction: Achieving an energy efficient ambulation in a transtibial amputee is an important goal of rehabilitation. Endurance and physical conditioning are prerequisites for prosthetic use. Readiness of the residual limb is not the only goal of the preparatory phase. The variations in the metabolic cost amongst amputees should be taken into consideration while planning a specific individualised pre prosthetic programme.

Objectives:

1. Analysis of the metabolic cost of unilateral below knee amputees during crutch walking in the pre prosthetic preparatory phase.
2. Analysis of the metabolic cost of unilateral below knee amputees during walking with prosthesis in the prosthetic phase.
3. Comparison with normal subjects with similar physical parameters having non pathological gait.

Method : Ten unilateral traumatic below knee amputees who were not using any prosthesis were selected from the OPD of NILD, Kolkata. All the subjects were between 25-50 years of age with atleast six months of duration post amputation .They were provided with bilateral axillary crutches followed by two weeks of crutch training. After this, they were made to walk with crutches on plane and inclined surface. Throughout this period a breath by breath analysis of the subjects were done with a Cosmed K4B2 respiratory analyser and selective cardiopulmonary parameters like oxygen uptake(VO2), energy expenditure per minute (EE) and others were recorded. Similar data was recorded three months after the patient had undergone adequate gait training and had received the prosthesis . Comparison with a control group of normal subjects with non pathological gait having similar physical parameters was performed to validate the data.

Result and conclusion : The study is ongoing and expected to be completed by January. The results can be analysed and conclusions drawn after that.

key words- transtibial amputee, k4b2 respiratory analyser, metabolic cost

0-12 Moderate Exercise Therapy, The Only Answer For Back and Neck Pain -A Case Series

Pampa De

Dept of PMR, The College of Medicine & Sagore Dutta Hospital, Kolkata

Back pain and neck pain are the leading causes of disability in all age groups. Proper evaluation and relevant investigations are the key to effective management. The various options for we physiatrists in the conservative line are pharmacotherapy,modalities, exercise therapy,ergonomics, orthotic management, etc failing which pain intervention has an emerging role. But in clinical practice we find that the patients often lack an important and consistent mode of management which is moderate exercise therapy when given after a proper assessment and evaluation and tailored to meet the specificity of annulling the pain generator.Most often either they are wrongly assessed or wrongly prescribed the mode of exercises or more commonly the number of exercises;the result being a great inadequacy of a very important mode of pain management. Therefore, the patients fall prey to a viscious cycle of pain-temporary pharmacotherapy and modalities-improper and inadequate exercise therapy-chronicity of pain and sensitization- persisting disability affecting not only the physical ailment but also adding to the psychosocial and economic burden of the individual and community. Here an important factor leading to the persistence of pain is either the scanty resource of pain intervention in the medical colleges of Kolkata or the incapability of affording the high cost of the same in private set ups.

Therefore we hereby present a case series of back and neck pain managed by adequate pharmacotherapy followed solely by adequate exercise therapy thereby highlighting the role of physiatrists in not only prescribing but also evaluating the exercise therapy and making sure that the patients comply by them and benefit in long run in the most cost effective way.

0-13 Urodynamic Profile & Effectiveness of Inpatient Rehabilitation for Patients with Neuromyelitis Optica.

Maitreyi Patil

Dept. of Neurological Rehabilitation, NIMHANS, Bangalore

Introduction: Neuromyelitis optica (NMO), previously considered a subtype of multiple sclerosis (MS), is now known to be a unique disorder associated with autoantibodies against aquaporin-4. The rehabilitation protocols for MS have been applied to NMO, without specific measures of efficacy.

Purpose: The evaluation of the bladder pattern observed in NMO and observe effectiveness of inpatient rehabilitation program for patients with NMO.

Patient And Methods: Retrospective chart reviews of 20 inpatients with NMO. Clinical severity was assessed by the ASIA, functional assessments were scored using the Barthel index(BI), and the Functional Ambulation Category (FAC). There was a higher percentage of women in the NMO group. significant differences were found in admission BI, EDSS and FAC scores. Urodynamic study was performed and bladder symptoms were treated accordingly.

Results: NMO patients are benefited by inpatient rehabilitation program. Though it is relapsing and remitting illness, inpatient rehabilitation help patients to improve their functional status, cope with disabilities and increase in quality of life.

Conclusions: Inpatient multidisciplinary rehabilitation programs can be successfully implemented for patients with NMO.

0-14 Ergonomic Survey of A Thermal Power Plant

S.Sunder

Introduction: A coal fired thermal power plant has many departments where ergonomic evaluation is needed. This was done by a team comprising of a physiatrist, an ergonomist, and a physiotherapist using RULA, NIOSH, REBA checklists.

Study Objective: Application of the discipline of Medical and Engineering ergonomics to identify ergonomic risk factors in each shop floor, work stress, criticality of the operations and give suggestions for improvement.

Methodology:

1. Measurements of heights, and distances of

machines and equipment in the following areas of operations:

- Coal handling plant
- Wagon tippling area
- Conveyor gallery
- Cable gallery
- Valve operating positions
- Boiler
- Coal mill
- Turbine hall
- Control room
- Ash handling plant
- Work shop
- Store
- Pump house
- Canteen
- Office areas

2. Physiological, anthropometric measurements of man such as reach, grip strength for postural stress.
3. Evaluation of office ergonomics, computer work stations and seating
4. Measuring resting, working, and recovery heart rate in shop floor
5. Assessing work stress.
6. Ergo-environmental and machine ergonomics, hand tool ergonomics, workspace layout
7. Recommended work limit and ergonomics of lifting, lifting index to determine the low back pain prevalence,
8. Awareness session for 2 - 3 hours with audio visuals

Sample Measurements on contractual labor and permanent staff

Results: The findings and recommendations have been given to the management for implementation. As of now the office ergonomics recommendations have been implemented.

Conclusion: There are several areas of operations in a thermal power plant where ergonomics plays a vital role in the promotion of musculoskeletal health of the man at work. Long term follow up of these recommendations show up the benefits of such a ergonomic program in prevention of musculoskeletal disorders.

0-15 The Effect of Ankle Foot Orthosis on Gait of Patients with Foot Drop

Sandip Dhole, Senior Resident,

Department of PMR, PGIMER, Chandigarh

Introduction: There is significant difference in spatiotemporal parameter of gait of patients with foot drop and healthy individual. Foot drop is a gait abnormality in which the dropping of the forefoot happens due to weakness, irritation or damage to the common fibular nerve including the sciatic nerve, or paralysis of the muscles in the anterior portion of the lower leg.Our aim is to asses the effect of Ankle foot orthosis in these patients by doing gait analysis.

Materials and Methods:We have done the Clinical Gait analysis of five foot drop patients with and without ankle foot orthosis by using Human Gait Lab. We have done gait analysis using BTS gait lab having sixteen force plate,six inftrared cameras and two video cameras.

Results: There was significant increase in mean velocity with an AFO (0.8 versus 0.98,p value 0.006). But other parameter given in table were improved but not statistically significant.

Conclusion : There is significant improvement in gait of foot drop patients with the use of ankle foot orthosis.

0-16 Tibial Hemimelia- Need of A Prosthesis

Pabitra Kumar Sahoo,

Dept of PMR, SVNIRTAR, Cuttack, Odisha,

Introduction : Tibial hemimelia is associated with complete or variable deficiency of tibia where fibula appears relatively over grown. Complex presentation of the limb includes gross shortening, rigid equino varus deformity, flexion deformity knee with instability of knee and ankle. None of the existing surgeries are sufficient enough to address all the functional limitations associated with the deformity. Limb becomes burden for the ambulation and some of them seek for amputation.

Aim of the Study: Designing special ambulatory appliances for both sort term and long term needs which will help in indoor as well as outdoor ambulation

Materials and Method: 21 patients with tibial hemimelia involving 31 limbs were presented to Department of PMR, SVNIRTAR, cuttack Odisha within a period from 2009 t0 20016. 10 were male & 11 were female children with a age ranging from 7month to 35 years. With respect to Jones classification, 19 limbs were type I category, 9 were Type II category, 1 limb shows type III and 2 limbs presented with type IV

of congenital tibial hemimelia. Various reconstructive surgery were performed in 5 patients, one patient opted for amputation and rest 15 patients were refused for surgery or they presented very late. Specially designed appliances were designed for 3 patients which are helpful in ambulation inside home and also for ambulation in community. The appliance could accommodate existing deformities of the knee, ankle and foot without any operative correction as well as equalise the lower limb length.

Result: The appliance improves the gait as well as the appearance, could be fitted to the patient without the prior need of operative correction and could be well disguised under any loose fitting garment.

Conclusion: Management of tbial hemimelia is a dilemma. Neither parents can be assured of reconstructive surgery nor an ideal prosthesis can be fitted with increasing functional demand. Considering to psychological emotion towards residual limb, a specially designed prosthesis can be prepared to improves their ambulation

References:

1. Paediatric Orthopedics- A system of decision making- Benjami joseph,Nayagam,randall Loder, Ian torode. Chapter 36, Page 255-259
2. KalamchiA, Dawe RV. Congenital deficiency of tibia. JBJS 1985: 67, 581-4

0-17 Management of Periarthritis Shoulder By Suprascapular Nerve Block- A Prospective Analytic Study

Pabitra Kumar Sahoo,

Dept of PMR, SVNIRTAR, Cuttack, Odisha

Introduction: Periarthritis shoulder is a common, but ill-understood disorder. It affects the glenohumeral joint, possibly involving a non-specific chronic inflammatory reaction, mainly of the subsynovial tissue, resulting in capsular and synovial thickening. It has a number of medical synonyms including adhesive capsulitis,pericapsulitis, stiff shoulder, and obliterative bursitis or in a broad sense, frozen shoulder

Objective of study: To compare efficacy of suprascapular nerve block alone with combination of nerve block with physiotherapy measures for management of periarthritis shoulder.Though the current literature shows multiple sitting of nerve block in periodic interval, this study shows the effects of once nerve block in addition to therapeutic procedure.

Materials and methods: 36 patients of 34 to 68 years age group, complaining of non specific shoulder pain were included in the study. 22 were female and 14 were male. They were randomly selected into two groups. Group-I (n-18) selected for suprascapular nerve block using 0.5% bupivacaine with 40mg methyl prednisolone& group-II(n-18) cases therapeutic program was added to nerve block.Free hand technique using anatomical land mark was used for nerve block procedure.Written informed consent was taken for suprascapular nerve block for treatment of shoulder pain after explaining thoroughly about the procedure. All 36 patients included in study had shoulder pain for 1 month to 3 months duration. After a detailed physical examination, X ray, tests including complete blood count, ESR,RAF were done for all patients

Results : All the patients were reassessed at 1wk, 3wks and 3months after injection with regard to their pain and disability using VAS &SPADI(shoulder pain and disability index). Group II patients show significant difference in SPADI score

Conclusion: Though shoulder pain is relieved by suprascapular nerve block, over all function is improved by addition of therapeutic measures. Repeated injection as shown in different literature is not always required if therapy is added to nerve block.

References:

1. E M Shanahan, M Ahern, M Smith, M Wetherall, B Bresnihan, O FitzGerald Suprascapular nerve block (using bupivacaine andmethylprednisolone acetate) in chronic shoulder pain Ann Rheum Dis 2003;62:400–406
2. Abdelshafi ME et alRelief of chronic shoulder pain: a comparative study of three approaches. Middle East J Anesthesiol. 2011 Feb; vol. 21(1) pp. 83-92)

0-18 Ultrasound assisted minimal incision CTS release –Validation Of Calicut Protocol.

Sreejith K

Dept of PMR, Govt medical college Kozhide, Kerala

Background: Carpel tunnel syndrome is one the most common compression neuropathies of the upper limbs. When conservative treatment fails surgery is considered a valid option. Palmar and recurrent branch of median nerve as well as superficial palmer arch are at risk of damage. The most common complications of surgery are bleeding, injury to the branches of median nerve,

Pillar pain CRPS, scarring of suture site. Preoperative ultrasonography help us to identify median nerve enlargement,bifid ,trifid variations with or without persistent median artery, bowing of transverse carpal ligament ,flexor teno synovitis.or space occupying lesions(eg, ganglia, tumors, thrombosed or anomalous arteries, abnormal muscle slips, or supernumerary muscles or tendons)

Methodology : Fifty Patient posted for carpel tunnel release between 2012 to 2015 were include in the study. Pts were posted for CTS release only after confirming Moderate to severe cts by electrodignostic examination. We hypothesized that that structure at risk during carpal tunnel release such as anomalous artery and superficial palmar arch can be protected if they are visualized early and the incision planned accordingly. we also hypothesized That an avascular area exists in the flexor retinaculam and characterizing the anatomical extent of the avascular area helps in safe dissection with minimal intra operative bleeding and we can do the release without tourniquet.

We used colour Doppler ultrasound to locate the arch and make the distal incision as proximal as possible to minimize the risk of damage to the superficial palmar arch and, at the same time, confirm that it is distal enough to release the compressed median nerve completely.

A preoperative ultrasound examination of carpal tunnel is done and important anatomic structures are marked and a 2 to 2.5cnm incision marked accordingly. Under local anesthesia without tourniquet using minimal incision CTS release is done.

Results: The complication rate of open carpel tunnel release is 2 to 10 %.In our series apart from a suture granuloma there was no complications in a six month follow up. Thus ultrasound assisted minimal incision carpal tunnel release is a safe and effective method of treating moderate to severe CTS.

0-19 Using Ultrasound Imaging in Abdominal Muscle Exercises- A Novel Approach

Shehadad.K

Department of PM&R, Govt. Medical College, Kozhikode

Introduction: USG is used more and more by doctors of different specialties for better diagnostic and therapeutic outcome of various disease conditions. Apart from radiologists physiatrists are a group who make use of USG in their day to day clinical practice like rheumatologists and anaesthesiologists. This paper shares our experience in using ultrasound for training in core muscle stabilization exercise of the abdominal muscles.

The procedure : The major abdominal muscles like the external and internal obliques and transversus abdominis are easy to be imaged by a high frequency transducer. The paraspinal muscles like the lumbar multifidus can also be imaged. The basic exercise pattern in patient with low back ache is directed towards the activation of transversus abdominis and lumbar multifidus. The high frequency probe(12-18 MHz) is kept on the abdomen of the patient and the muscles are identified. Different cues are then given for activating the transversus abdominis muscle and the muscle is observed on screen. The exclusive contraction of the transversus is aimed(with minimal activation of the companions) and patient gets a visual bio feed back by seeing the contraction of this muscle on the screen and the patient can easily learn the correct way of doing the exercise. After the initial training the patient can be given perturbation exercises and the proper activation of the transversus abdominis can be assessed again. Similarly the paraspinal muscles can be trained with usg bio feed back.

Result: Our experience is that the USG biofeedback technique for the abdominal muscle exercise significantly improved the compliance of the patient and they could do it in the proper way. However a proper case –control study may be needed to compare this method with the existing traditional training methods

Take Home Message: MSUS (Musculoskeletal Ultrasound) is now considered as the extended finger of the clinician. Experience says that it is more so for the physiatrists.

0-20 CTEV Correction Using Low Temperature Thermoplastic Splinting

Shadiya Beegum P.V

Senior Resident, Department of PM&R, Government Medical College, Kozhikode, Kerala.

Congenital Talipes EquinoVarus is one of the most common congenital deformities. In this study, conducted in our institution, an attempt has been made to explore the effectiveness of low temperature thermoplastic splinting in the management of congenital talipes equino varus An observational study over a period of one year

in 32 CTEV patients with Pirani less than three is studied by using Pirani score and radiological examination. Follow up done for 6 months. Effectiveness of LTTP splinting were evaluated in details. And it was found that correction of CTEV with LTTP splinting was effective and is substantiated by reduction in Pirani score.

Key words: Congenital Talipes EquinoVarus, Pirani score, Low Temperature Thermoplastics

0-21 Gait Analysis Can Also Access Effectiveness of Transforaminal Epidural Steroid Injection in Unilateral Radiculopathy

Piyali Basak

Objective To compare the efficacy and outcome of transforaminal epidural steroid injection by gait analysis, pain and disability measurements. Methods 60 patients aged between 18 to 60 years who attended pain clinic with complains of low back pain with unilateral radiculopathy in ESI Hospital, Kolkata, were included for this randomised controlled trial. LBP was diagnosed due to lumber disc herniation. Patients were divided into 2 groups (30 patients in each group); Group I: was received anti neuropathic medications eg, tab Gabapentin, tab Amitriptyline and Spinal extension exercises and single transforaminal epidural steroid injection with deposteroid (20mg) and 0.25% bupivacaine. Group II: Control group was received anti neuropathic medications and exercises. Each patient was followed up for 1 month. Results In group I, changes in mean of numerical rating scale for pain intensity measurement between visit 1 and 2 is -4.19 and in group II, -1.10. But in both groups, p value is < 0.001. In group I, changes in means of modified Oswestry disability index scores between visit 1 and 2 is -27.58 and in group II, -4.65 and p value is < 0.001 in between 2 visits in both group. In group I, changes in means of pelvic angle measurement of affected limb between visit 1 and 2 is -7.20 and in group II, -1.70. But in both groups, p value is < 0.001 in between 2 visits. Conclusion Transforaminal epidural steroid injection along with exercise and medications cause a significant improvement in gait analysis in unilateral radicular pain after 1 month. Also significant improvement noted in NRS of pain measurements and modified Oswestry disability index scores.

PGT PAPERS 22 - 57

0-22 Evaluation of Suprascapular Nerve Block and Intraarticular Steroid Injection as a Treatment Modality in Patients with Periarthritis Shoulder

Sakshi Jain
V.M.M.C Safdarjung Hospital, New Delhi

Introduction: Periarthritis shoulder (PA)characterized by gradual onset of pain with restriction of active and passive shoulder range of motion is one of the commonest musculoskeletal conditions of upper limb. Treatment options include rest, NSAID, active and passive mobilization, physical modalities, hydro-dilatation, manipulation under anaesthesia, arthroscopic capsular release, intraarticular injections and regional nerve blocks.

Objective: To assess the effectiveness of suprascapular nerve block and intraarticular steroid injections in periarthritis shoulder.

Methods: 90 patients of periarthrits shoulder were enrolled in the study and randomly allocated into two groups. Group A received methyl prednisolone 80 mg intraarticular injection and Group B received suprascapular nerve block of 0.5% bupivacaine and methyl prednisolone. Each patient was assessed before intervention, at 1, 4 and 12 weeks after intervention. 0-10 Numeric Pain Intensity Scale, Active and passive range of motion, Quick Disability of Arm, Shoulder and Hand (DASH) score and Shoulder Pain and Disability Index (SPADI) were used for assessment.

Results: Group A showed statistically significant improvement ($p<0.05$) in pain, ROM and functional index on follow up at 1, 4 and 12 weeks whereas, group B showed improvement ($p<0.05$) in all parameters except passive flexion and external rotation on first follow up. However,this difference disappeared at subsequentfollow ups. Comparison between the groups revealed a better outcome in Group A, in terms of Numerical Pain Intensity Scale Scores, SPADI Score, passive extension, active and passive internal and external rotations at 1, 4 and 12 weeks. Both the groups were comparable in terms of qDASH, active and passive abduction, flexion and active extension at first week with Group A showing subsequent improvement.

Conclusion: Both intrarticular steroid injection and suprascapular nerve block showed improvement in patients with periarthritis shoulder, butintrarticular steroid injection was found to be more efficacious as compared to suprascapular nerve block.

0-23 Unmet Needs of Persons With Disability In Uttar Pradesh and Barriers In Utilization of Rehabilitative Services

Mohit K Srivastava

Uttar Pradesh

Introduction : Disability is an important public health problem in India. According to Census 2011, there are 2.68 crore Persons with Disabilities in India (constituting 2.21% of the total population) and 16% people in Uttar Pradesh suffer from some form of disability. Disabled People are the most neglected part of the society. Many people with disability in Uttar Pradesh do not have access to services like social security, health care, education, right to information, employment, transport, rehabilitation services, vocational training and leisure facilities. It is very essential to understand these unmet needs so that measures can be taken to provide them early rehabilitation and healthy environment for living.

Aims And Objectives : The aim of this study is to highlight the unmet needs of persons with disability in Uttar Pradesh and explore the barriers faced by them.

Material & Methods: Secondary data from Census 2011 and Annual Report 2012-2013 of Office of the commissioner for Persons with Disability, Ministry of Social justice and Empowerment, GOI was analysed and various studies were also reviewed.

Results: There is evidence of various unmet needs among PwD like education, employment, lack of rehabilitative services, issuance of disability certificate, marriage, housing and transport facilities. Financial, personal environmental and social barriers in utilizing rehabilitative services were observed. Preconceptions, low expectations and negative attitudes or behaviours towards people with disabilities were the dominant social barriers.

Conclusion: In Uttar Pradesh, the numbers of disabled is so large, problems so complex, available resources so scarce and social attitudes so damaging, it is only legislation which can eventually bring about a substantial change in a uniform manner. Although legislation cannot alone radically change the fabric of the society in a short span of time it can nevertheless fulfil some of their unmet needs.

0-24 Determinants of Walking Ability in Patients with Traumatic Paraplegia

Sheraj Fernandez

Dept of PMR, CMC Vellore.

Introduction: Walking is one of the most sought after goals among individuals following a traumatic spinal cord injury. However, only less than one third of patients with spinal cord injury are able to walk again after this life changing event.

Objectives: To determine the role of modifiable factors including cardiovascular endurance, shoulder depressor forces and body balance on walking ability among motor complete T8-L2 paraplegics, who have completed a routine rehabilitation program.

Methods: Cardiovascular endurance was determined using the rate of change of heart rate to an incremental workload by a hand cycle ergometery test. Shoulder depressor force was measured using a standard walker mounted on an electronic weighing balance. Balance was determined by measurement of postural sway produced by the participant over a Good Balance triangular force platform. The data collected was analyzed to determine whether there was a significant difference in the above variables between patients who could ambulate at least 10mts, versus those who could not do so.

Results: 45% of the patients were able to achieve functional ambulation. Walkers had better cardiovascular endurance than non-walkers as evidenced by higher 'mean work load' achieved at lower heart rates. Statistically significant differences in heart rate were noted at work loads of above 110 watts. The overall slope of change in heart rate with incremental work load was lower among walkers by 1.09 units (95% CI: 0.12, 2.07, p =0.028) indicating better exercise tolerance. There was no statistically significant difference in shoulder depressor forces and body balance between the two groups of walkers and non walkers.

Conclusion: The findings suggest that better cardiovascular endurance can lead to improved walking ability among T8-L2 paraplegics post rehabilitation.

0-25 A Comparison of Balance Impairments In Early and Advanced Osteoarthritis of Knee

NoufalAli,

Department of PMR, AIIMS, NewDelhi

Background: Knee osteoarthritis (OA) is a major cause for pain and functional impairment in elderly and is known to impair the joint proprioception and thus

balance. Balance is essential for mobility and activities of daily living. But the studies which have compared the extent of balance impairment in various grades of OA have got contradictory findings.

Materials and methods: Patients coming to PMR OPD, AIIMS were screened for OA knee using ACR criteria and classified into early (Kellgren-Lawrence grade1 and grade2;n=40) and advanced (Kellgren-Lawrence grade3 and grade 4; n=40) OA groups. This cross-sectional study then compares the extent of balance impairment using Biodex Balance Master and mobility using Timed Up And Go Test.

Results and conclusion: The results and conclusion of this still ongoing study are presently being analyzed and will be discussed in the paper presentation.

0-26 Comparison of functional outcome of Intra Articular Hylan vs Methyl Prednisolone Acetate in osteoarthritis-knee

S.Suganthi

Government Institute of Rehabilitation Medicine, Madras Medical College, Chennai.

Introduction:

Osteoarthritis (OA) of the knee is characterized by chronic pain, cartilage matrix degradation, deterioration of the mechanical properties of the synovial fluid, bony osteophyte formation, and episodic inflammation. Lower molecular weight hyaluronan found in osteoarthritic joints fails to retain its viscoelasticity and ability to withstand shear forces, both small (normal joint movement) and large (high impact forces). As a result, joint surfaces can become progressively damaged when endogenous hyaluronan production is reduced by disease. Hylan-GF20 is identical to human synovial fluid both in molecular weight and viscoelasticity. There were studies to confirm the longterm efficacy of Hylan-GF 20 due to its viscoelasticity and high molecular weight.

Intra articular corticosteroids have been also used for many years for pain relief and more studies prove to provide early onset and prolong the duration of analgesia. Corticosteroids may work through influencing levels of collagenase and aggrecan, as well as matrix metalloproteinases and proinflammatory cytokines.

Aims and Objectives: To compare the functional outcome and pain relief of Intra articular Hylan GF-20 (48mg) Vs Methyl Prednisolone Acetate(80mg) for Grade II Osteo Arthritis knee.

Materials and methods : We enrolled 60 subjects from our institute and conducted a single blinded prospective comparative study in osteoarthritis knee grade 2.

- Subjects were randomized by systematic random sampling, according to registration number of the study (30 in each group).Subjects were evaluated periodically for the relief of pain symptom and improvement in physical function by assessing VAS, WOMAC and knee ROM.

Results: VAS, WOMAC score and knee ROM after 26 weeks of intra articular Hylan-gf20 injection group showed statistically significant difference (p value <0.05) in pain relief and functional improvement than steroid group.

Conclusion: Intra articular Hylan GF-20 shows statistically significant improvement in Pain and functional outcome. Hence Hylan GF-20 can be considered as an important therapeutic measure in the management of OA.

0-27 The Comparison of Effect of Ultrasound Guided Suprscapular Nerve Block Versus Intra-Articular Steroid Injection on Periarthritic Shoulder.

Verma D.K

Department of PMR, AIIMS, All India Institute of Medical Sciences, New Delhi 110029

Objective :

To assess the relative effectiveness of two injections methods ultrasound guided suprscapular nerve block (SSNB) versus intra-articular steroid injection (IAI) on periarthritic shoulder with respect to pain, range of motion, functional activity and reduction of disability.

Method: In this comparative study, we recuited 60 patients diagnosed with periarthritic shoulder and being treated in the department of physical medicine and rehabilitation at AIIMS. . The study period was from sept, 2014 to aug, 2016. SSNB was performed in 30 patients, IAI was performed in 30 patients . SSNB was ultrasonography and IAI was blindly. Eligible patients underwent baseline evaluation following which they completed a scale exploring their pain, range of motion (ROM), functional activity and reduction of disability by visual analogue scale (VAS), goniometer and shoulder pain and disability index (SPADI) respectively. Repeated measures were performed on pre- injection, and after injection at 1week, 3 weeks, and 6 weeks .

Result and conclusion of this ongoing study will be analyzed and discussed during paper presentation.

0-28 Compliance of Abduction Foot Orthosis And Recurrence of Deformity After Ponseti Method For Treatment of Club Feet

Sreeja.K.S

Dept of Pmr, Svnirtar. Orissa

Background: CTEV is a congenital abnormality of lower limb with 1-2 in 1000 incidence. The non operative technique for the treatment of CTEV described by Ponseti consisting of serial casting of foot followed by Achilles tenotomy is a popular method. But this requires 4-5yrs of orthotic management in foot abduction braces.The purpose of this study was to find out the compliance of the usually prescribed DB splint and its relation with the recurrence of deformity in follow up period.

Method: Cases of 36 infants with 54 club feet treated with ponsetti technique was examined retrospectively. Feet were rated according to Dimeglio and Pirani scoring system at initial presentation ,time of application of DBsplint and at monthly reviews till walking age and 3months thereafter . Demographic data,parental reportsof compliance ,functional scale of foot with DB SPLINT was noted. Compliance was defined as full time (nearly 23hrs) use of splint for first 3months,18 hrs after 3m(night 12hrs+4-6hrs in day time) and night time use until age of 3/4yrs.Noncompliance was failure to fulfil the criteria during any of these period.

Results : Non compliance was the major factor related to risk of recurrence.At follow up compliant group scores were significantly better than non compliant groups. Dimeglio scores deteriorated significantly in non compliantgroup.Parental education, stigma of persistent orthotic use,misconceptions were all making DBsplintnon compliantThere is no significant relation found with initial severity of deformity, tenotomy, number of casts applied with recurrence rate.

Conclusion The compliance of DB splint is a major factor in maintaining the corrected foot after Ponseti technique .Good counselling at the time of prescription of orthosis significantly improves its compliance.

0-29 Prospective Randomized Control Trial Comparing Outcome of Local Steroid Injection By Ultrasound Versus Palpation Technique In Plantar Fasciitis

Shalini Mishra,

Dept. of PMR, AIIMS,New Delhi

Background: Plantar Fasciitis is a common cause of heel pain. We did this study to confirm previously published studies that ultrasound-guided injection of corticosteroid is more effective or equally effective than palpation-guided injection in plantar fasciitis.

Aim: The aim of the study is to comparatively evaluate the effectiveness of local steroid injection by ultrasound guidance and by palpation technique in plantar fasciitis.

Materials and methods: It's a prospective study conducted at AIIMS New Delhi, from July 2015 to Nov 2016. Patients with heel pain were screened for plantar fasciitis by ultrasound. Plantar fasciitis patients managed conservatively for 3 weeks. Those patients were randomized in two groups, in whom conservative treatment failed. Group1 (n=30) received corticosteroid injection by ultrasound technique in plantar fascia. Group2 (n=30) received corticosteroid injection by palpation technique in plantar fascia. Then all patients were followed up in 3 weeks and 6 weeks. We compare VAS score, plantar fascia thickness and heel pad thickness in both groups.

Results and conclusion: The results and conclusion of this still ongoing study are presently being analyzed and will be discussed in the paper presentation.

0-30 Ambulation Augmentation In Low Level Paraplegics Using Resistance Bands- A Pilot Randomized Control Trial

Gaurav Gomez

DEPT of Physical Medicine and Rehabilitation,

Background: Walking in low paraplegics usually with Knee Ankle Foot Orthoses and crutches is 5 times slower and >9 times energy consuming as able bodied walkers causing low compliance, wastage of resources and leaves them immobile and dependent. We need to address this problem but the other alternative augmentative devices are impractical.

Objective: Develop a simple, affordable, readily available, light weight, aesthetic, and customizable augmentative device, not requiring added expertise, training or resources to put to use, to improve walking efficiency thus improve compliance, productivity and independence. Attempting to use Resistance-Bands to achieve this, look at safety and feasibility and compare effect on gait and energy parameters via RCT.

Design: Prospective Pilot RCT, followed by Partial cross over and Pre vs Post design.

Participants: Motor complete T10-L1 (lack lower

limb power) Paraplegics trained to walk using KAFOs and Crutches.

Intervention: Novel use of Resistance-Bands as add-on to KAFOs.

Main Outcomes: Speed (10meter walk test), Endurance (6 minute walk test), Energy expenditure (Physiological Cost Index-PCI), Step Length, Cadence and Acceptability questionnaire (OPUS).

Results: Part 1:(RCT)=intervention caused statistically significant increase in Step length and reduction in energy expenditure. Device was overall well accepted.

Part 2:(Partial cross over)=also statistical significance increase in step length and decreased PCI in Control group.

Part 3: (Pre-Post intervention)=statistically significant increase in step length, speed and endurance with a statistically significant decreased PCI.

Conclusion: Addition of resistance-bands to already existing KAFO-crutch combination, augments efficiency of gait-speed, step length, endurance, while decreasing energy consumption. This has the potential to increase walking compliance and limit waste of limited resources. The device is acceptable, safe and feasible.

0-31 The Role of Ultrasonography In The Non Invasive Assessment of Upper Airway For Decannulatingtracheostomy In Patients With Acquired Brain Injury – A Pilot Study

Samuel Barnabas Sikha,

Department of PMR, Christian Medical College, Vellore, Tamil Nadu.

Background: In patients with acquired brain injury who are on prolonged tracheostomy tube for airway management, decannulation is one of the steps in rehabilitation. Endoscopy is used to assess vocal cord mobility and airway prior to decannulation. Ultrasonography is a non invasive test used widely for varied applications. The present study evaluated role of ultrasonography in the assessment of airway prior to decannulation.

Materials and Methods: Patients with acquired brain injury were screened. Inclusion criteria: Age between 18 to 70 years, capping of tracheostomy for ≥ 24 hour with SpO2 ≥ 90%. Exclusion criteria: Pregnant women, patients on mechanical ventilation, active chest infection, non co-operative patients. Participants, who fulfilled the criteria and gave a valid consent, underwent an airway assessment by ultrasonography. Within 72 hours post-ultrasonography, an assessment of airway was done by radiography of the neck followed by endoscopic assessment of airway. Principal investigator was blinded to the results of endoscopy.

Results: Out of 30 patients screened 24 were included in the study. Vocal cord assessment by ultrasonography revealed a sensitivity of 81.25% and specificity of 87.5%. A statistically significant association between vocal cord mobility as assessed by ultrasonography and decannulation was observed (p value 0.002) Aspiration was not assessed by ultrasonography. However, a statistically significant association was observed between vocal cord mobility on ultrasonography and aspiration as assessed by endoscopy (p value 0.01). No statistical association was noted for clinical variables gag reflex and drooling of saliva with decannulation.

Conclusion: The observations noted suggest ultrasonography alone may be used to assess vocal cord mobility and airway in centers with either lack of infrastructure or expertise to perform an endoscopy. A trial with a larger sample size is required prior to application of these results to a larger population.

0-32 Spinal Cord Injury Patients Profile & Functional Outcome In Aiipmr, Mumbai From 2011-2015

Joydeep Das,

Dept of PMR, All India Institute of Physical Medicine & Rehabilitation, Hajiali, Mumbai

Introduction: Spinal cord injury (SCI) is a major debilitating disease which results in functional, economic, psychological and social disability. The developments in the management of SCI have led to decrease in morbidity and mortality rates, thereby increasing the prevalence of patients with varying degrees of functional limitations. Although patients with SCI have a great impact on healthcare system, there is a dearth of reliable statistics concerning spinal injury in India . There is still a need for more insight into the characteristics of the populations affected with SCI. In this retrospective and descriptive study, we aimed to identify the neurological and demographic profile as well as functional outcome of patients with SCI admitted in PMR Department of All India Institute of Physical Medicine & Rehabilitation ,Mumbai.

Materials and Methods: Neurological profile of traumatic SCI patients admitted in PMR Department, AIIPMR, Mumbai was recorded using a structured proforma and analysed. Demographic profile of

the patients, time since injury, functional status and complications were also recorded.

Results: Among the patients 75% were traumatic & 25% were non traumatic. Among all 87% were paraplegics with D8(59.09%) as the most common neurological level involved & 44% were American Spinal Injury Association (ASIA) grade A. The mean FIM score at admission was 72.95±12.6 and at discharge was 99.15±13.42. Spasticity was present in 65% patients with gastrosoleus as most common site. Among the patients 63% had urinary tract infection (UTI)& 27% had pressure sore among which sacral ulcer was the commonest one & 21% had both UTI & pressure sore. The most common mode of bladder management was clean intermittent catheterization (CIC) which was done in 69% patients (72.7%).Those who had pressure sore among them 83% was managed with regular dressings & 17% patient needed flap surgery.

Conclusion: Majority of the traumatic SCI patients comprised ASIA grade A and paraplegics were commoner than quadriplegics. The commonest cause of injury observed was road traffic accident follwed by those due to fall from height.With proper rehabilitation functional status of SCI patients can improve significantly. The commonest complications encountered in these pateints were spasticity, UTI and pressure ulcers.

0-33 Comparison of the Clinical Effect of Intra-Articular Injection of Platelet-Rich Plasma and Methyl-Prednisolone in Primary Osteoarthritis of Knee.

Longjam Darendrajit Singh

Department of Physical Medicine and Rehabilitation Regional Institute of Medical Sciences, Imphal

The author acknowledged that the paper submitted is our original work. All authors participated in the work in a substantive way and are prepared to take full public responsibility for the work. All authors have seen and approved the article as submitted.

Introduction: Osteoarthritis of knee is one of the commonest musculoskeletal disorder causing mobility impairment affecting 3.3% in urban areas and 5.5% in rural areas. Intra-articular injection of platelet-rich plasma (PRP) delivers activated platelets that may reduce inflammation, provide pain relief, improve function and stimulate possible cartilage regeneration at the site of worn cartilage area of the knee.

Setting: Department of Physical Medicine and Rehabilitation, Regional Institute of Medical Sciences, Imphal.

Study design: Randomized Controlled Trial.

Study period: October 2014 to September 2016

Study population: Patients with primary osteoarthritis of knee

Method: 6 ml of PRP prepared by conventional bench top centrifugation system was injected intra-articularly, two weeks apart in the PRP group. Steroid group received 80mg of methylprednisolone, two weeks apart by the same technique. The outcome variables (Visual Analog Scale and WOMAC score) were measured before starting intervention (baseline) and at 8 and 24 weeks post-intervention follow up.

Results: There were significant improvement in the mean score of all the outcome measures; VAS, WOMAC-Pain, Stiffness and Physical function and Total scores in both the groups at 8 and 24 weeks follow-ups (p=0.000). When both the groups are compared the steroid group is better than the PRP group in terms of improvement in mean VAS and WOMAC scores at 8 weeks follow up (p=0.000). But at 24 weeks follow-up, intra-articular injection of platelet-rich plasma is significantly more effective than the steroid group in reducing pain and disability due to primary knee osteoarthritis of Kellgren-Lawrence grade 2 and 3 (p=0.000).

Conclusion: Intra-articular injection of methyl-prednisolone was found to be more effective in reducing pain and disability in primary knee osteoarthritis of KL grade 2 and 3 at the end of 8 weeks whereas 2 doses of PRP intra-articular injection 2 weeks apart was significantly more effective than methylprednisolone at the end of 24 weeks. However the long term benefit of PRP is to be determined by studies with a larger sample size and longer duration of follow-up.

Keywords: Platlet rich plasma, osteoarthritis

0-34 Appraisal for Needs of Rehabilitation in Patients with Multiple Myeloma

Saha Vasundhara

Department of PMR, AIIMS

Introduction : Multiple myeloma is associated with impaired quality of life in most patients in pre-treatment phase. We tried to assess the rehabilitative needs, as well as levels of quality of life (QOL) in patients with Multiple Myeloma

Methods : In this cross sectional survey we studied 90 patients diagnosed with multiple myeloma and being treated in the department of Medical Oncology at

AIIMS. . The study period was from Nov, 2014 to Jan, 2016. Eligible patients underwent baseline evaluation following which they completed a scale exploring their functional status by Barthel mobility index scoring and QOL with the EORTC QOL scale with its myeloma module. Association between individual variables and outcome scores was analyzed. .

Results : The QOL and functional impairment was moderate (39 ± 18.2), with key areas of impairment being physical (100%), emotional (95.6%), social (86.7%) and cognitive(67.8%) functioning. Most bothersome areas were inability to do strenuous activities (98.9%), pain interfering with daily activities (84.2%) with significant pain in more than one third of patients (47.8%), tiredness (96.7%), limited leisure (84.4%), family and social activities (86.7%), excessive worry (95.4%), depression (56.7%) and financial difficulties (44.4%). Majority of patients had vertebral collapse (72.2%) and backache (83.3%) and half (50.3%) were diagnosed post 6 months of onset of symptoms. The psychological, social and financial concerns of majority were not addressed.

Conclusion: All patients with Multiple Myeloma should be screened for functional impairment including physical, emotional , social and cognitive functioning with a proper assessment of psychological disorders. Those with moderate to severe impairment should be provided with appropriate rehabilitative services along with optimization of management of symptoms, in order to improve the QOL and thereby outcome.

0-35 Evaluation of Bone Mineral Density in Paraplegic Patients with Spinal cord injury

Sivaruban.S

Dept of PMR, PM&R, AIIMS New Delhi

Background/ Objectives: Patients with spinal cord injury exhibit bone loss ultimately leading to Osteoporosis and usually is observed in paralyzed limb, accompanied by loss of biochemical strength and high incidence of pathological fractures. This study is performed to compare the Bone mineral density (BMD) in traumatic SCI paraplegic patients with controls by using dual energy X-Ray absorptiometry (DXA) in spine, hip, distal femur and proximal tibia.

To determine correlation of BMD with the level of lesion, severity of lesion, duration of lesion, functional activity and spasticity in bilateral lower limbs. This study aid in better understanding the level of influence of these factors on skeletal strength in paraplegics and can guide in making preventive measures and formulating better rehabilitation protocol

Type of Study: Cross sectional

Place of Study: Department of PM&R Medicine, AIIMS, New Delhi.

Method: Patients with paraplegia due to SCI were selected. BMD was evaluated using DXA for Subjects (patients with age and sex matched control) Muscle tone was evaluated Using the Modified Ashworth Scale, WISCI (walking index for spinal cord injury) scale was used to evaluate ambulation level. Bone mineral markers were also calculated.

Results and conclusion: The results and conclusion of this ongoing study are presently being analyzed and will be discussed in the paper presentation.

0-36 Outcome of Rehabilitation of Organophosphate-Induced Delayed Neuropathy (OPIDN) - A Case Series

Faiz Mohamed

Department of PMR, Swami Vivekanand National Institute of Rehabilitation, Training and Research, Odisha

Background: Organophosphate poisoning is the most common poisoning in India. Also, accidental and occupational exposure leading to poisoning is observed occasionally. Organophosphorus poisoning could be described in three phases (Acute cholinergic effects, Intermediate syndrome and Organophosphate-induced delayed neuropathy).

Organophosphate induced delayed neuropathy (OPIDN) is a predominantly motor axonal neuropathy which usually occurs 1-5 weeks after the ingestion of large doses of certain organophosphate insecticides. The condition is associated with symmetrical sensory-motor axonal degeneration of the peripheral nerves and spinal cord. In severe cases, quadriplegia with foot and wrist drop are seen. Patients with mild cases recover over several months but those with more serious polyneuropathies have persistent effects. Recovery affects mostly sensory nerves, while motor neurons may permanently lose function. Most literature point towards a poor motor recovery.

This study aims to find out : Is there a need for in-patient rehabilitation in these patients? Is functional recovery possible?

Method : Case Series, consecutive type, involving 3 patients were observed for the improvements following in-patient rehabilitation at SVNIRTAR, odisha.

Patients were assessed on Overall Neuropathy Limitation Scale (ONLS) .

Results: Significant motor recovery, especially of the proximal lower limb muscles were obtained in all 3 patients. They were able to ambulate with an Ankle Foot Orthosis on discharge after 1 month. All the patients had a ONLS score above 7 at admission, which improved to 5 or below.

Conclusion : There is scope for motor recovery in cases of Organophosphate Induced Delayed Neuropathy, especially of the proximal group of muscles, which has significant functional significance. All 3 patients were bed ridden at time of admission. They could be mobilized with aids and are community ambulator now.

0-37 Outcome of Ultrasound Guided Sacroiliac Joint Corticosteroid Injection In Seronegative Spondyloarthropathies

Dey Ishita

Dept of PMR, IPGMER, Kolkata

Sacroiliitis, a condition commonly seen in seronegative spondyloarthropathies(SPA), is well known to be one of the main pain generators of low back region, which may result in difficulty with walking.

Aims & Objectives: To study the therapeutic efficacy of US-guided intra-articular corticosteroid instillation of inflamed sacroiliac joints (SIJs) in patients with SPA.

Study Design: Prospective analytical study

Sample Size: n= 21 patients (13 B/L & 8 U/L)

Study Duration: 10 months.

Study Place: Dept. of PMR; IPGMER & SSKMH

Inclusion Critera:

1. Diagnosed cases with seronegative SPA.
2. Active sacroilitis clinically / radiologically.
3. Poorly controlled with conservative treatment.
4. Age: 18-45 years.
5. Oswestry Disability index > 40%
6. VAS>5

Exclusion Criteria:

1. Severe Peripheral arthritis with hip involvement.
2. Patients unable of prone lying.
3. Allergy to lidocaine or presence of coagulation disorder.
4. Unwilling patients.

Methods & Materials: After defining sonoanatomic landmarks, US-guided 23 gauge spinocaine needle was inserted in SI joint under proper asepsis, to inject a mixture of corticosteroid & 2% lidocaine, after giving local anaesthesia. Assessment was done in consecutive 3 visits at 2, 4 & 12 weeks in respect to VAS & Oswestry DI.

Result: Statistically significant improvement in pain & disability seen after intervention in SI joint.

Conclusion: US-guided intraarticular corticosteroid instillation in the SIJs may be regarded as an effective therapy for florid sacroiliitis in NSAID nonresponsive cases.

Keywords: seronegative spondy loarthropathy, ultrasound- guided, sacroiliitis, steroid injection

0-38 Role of Infliximab Therapy in Functional Improvement in Patients with Ankylosing Spondylitis

Konar Ambar

Dept of PMR, IPGMER, Kolkata

Ankylosing spondylitis, the spondyloarthropathy predominantly affecting the younger genre of population, is notorious for the morbidity with pain, functional impairment and disability. Infliximab, a chimeric TNF alpha inhibitor that has been proven as a safe and effective biologic therapy for Ankylosing spondylitis, has shown clinical and radiological improvement. This study is a humble attempt to look for disability limitation by infliximab therapy in patients of ankylosing spondylitis .

Aims & Objectives:

3. To look for functional improvement in Ankylosing spondylitis patients treated with Infliximab.
4. To compare that outcome with control group treated with conventional synthetic disease modifying drugs.

Study Design:

Randomised controlled trial

Sample Size: 20

Study Duration: 6months

Study Place: Dept. of PM&R, IPGMER; SSKMH

Inclusion Criteria:

- ASAS criteria fulfilled Ankylosing spondylitis patients.
- Disease causing significant functional limitation.
- Patients giving consent for the study.

Exclusion Critria:

- Active infection or septicaemia.
- Documented Hypersensitivity.
- Uncontrolled systemic disease.
- History of malignancy.

Methods and Materials: After Ethics Committee clearance, two groups were made randomly. Group-A received injection infliximab on D0, D14 and D42 and Group B received optimum dose of tab. Sulphasalazine along with rehabilitation programme.

Assessment by BASFI and VAS for lower back pain done before intervention & 1/2/ 4 weeks after treatment.

Results: Statistically significant positive outcome difference seen in the first group in comparison to control group.

Conclusion: Infliximab is a safe and highly efficacious biologic therapy having a significant role in limiting disability in ankylosing spondylitis patients if treated early.

Key words: Ankylosing spondylitis, Disability, BASFI: Bath Ankylosing Spondylitis Functional Index, VAS : Visual Analogue Scale.

0-39 Comparison of Sensorimotor Recovery of The Patients Undergoing Comprehensive Rehabilitation Programme With and Without Bobath Shoulder Sling For Post-Stroke Painful Shoulder Subluxation

Ushnish Mukherjee

Dept of PMR, RGKMC, Kolkata

Background : Shoulder pain in post-stroke patients is a frequent symptom contributing to significant disability. The role of subluxation in generating a painful shoulder has been debated, but it is often associated with it and delays the sensorimotor recovery of the affected limb. Various rehabilitational strategies along with the use of different shoulder supports showed variable and sometimes contradictory outcomes while managing these patients. Therefore, a study was done for comparing sensorimotor recovery of the affected upper extremity in patients undergoing comprehensive rehabilitation programme with and without Bobath shoulder sling for post-stroke painful shoulder subluxation.

Material and Methods: This randomized prospective study was conducted in the Department of Physical Medicine & Rehabilitation, R.G.KAR Medical college, Kolkata, after obtaining the clearance from institutional Ethical Committee. A total of 30 patients, who were satisfying the inclusion and exclusion criteria, randomly divided into two groups (group 1 and 2) of equal numbers after obtaining proper informed consent. Both the groups were managed with comprehensive rehabilitation programme but Bobath shoulder sling was given only to the group1. Fugl-Meyer Assessment-Upper Extremity(FMA-UE) was used for assessing sensorimotor recovery at the baseline/visit1, 6 weeks/ visit2, 12 weeks/visit3 and 24weeks/visit4 and analyzed by IBM SPSS Statistics version 20.

Results: More improvement in FMA-UE was noted in group1, compared to group2 at visit2, and it was statistically significant (p=0.023). But the sensorimotor recovery differences in visit3(p=0.207) and visit 4(p=0.714) were not significant between two groups.

Conclusion:

Use of Bobath shoulder sling was beneficial in early stages of stroke, but did not provide extra advantage in long term use. However, long term continuation of comprehensive rehabilitation programme is recommended.

Acknowledgement of Funding Source etc: Nil

0-40 To Compare Efficacy of Intra Articular Injection With Platelet Rich Plasma, High Molecular Weight Hyaluronic Acid and Methyl Prednisolone In Osteoarthritis of Knee.

Pati S

Dept of PMR, IPGMER, Kolkata

Osteoarthritis of knee is very common, relatively benign but seriously disabling conditions. It is one of the most common entities which presents in PMR OPD on daily basis but still now we are struggling to control the disease. Steroid is an age old weapon in our armour and Hyaluronic acid over the years proved its efficacy in improving pain. Platelet rich plasma (PRP), a relatively new entity has few more properties to relieve pain and halt the progress of the disease. Hence we tried to see its efficacy against steroid and hyaluronic acid.

Aims & Objectives:

A. To Look for efficacy of PRP, Hyaluronic Acid and Methyl Prednisolone in treatment of OA Knee
B. To compare the efficacy between PRP, Hyaluronic Acid and Methyl Prednisolone in treating OA Knee

Study Design: Three arm parallel group open level

RCT

Sample Size : 120

Study Duration : 2 years

Study Area: IPGMER

Inclusion Criteria: Confirmed case of grade 2 and 3 osteoarthritis knee as per kellgren and Lawrence classification.

Exclusion Critria:

1. Patients with contraindications to PRP, Steroids and Hyaluronic Acid
2. Patients refusing intervention

Methods and Materials: After taking institutional Ethics Committee clearance, three groups were made randomly. Group A received Steroid , Group B High Molecular Weight Hyaluronic Acid and Group C Platelet Rich Plasma in aseptic technique after written consent

Assessment was done : before the block, 6th week, 12th week after block

Assessment Criteria: VAS, WOMAC and 50 Feet Walking Time

Results: Maximum improvement pattern at end of 12 weeks is seen due HA (68.34% in VAS, 66.37% in WOMAC and 52.55% in 50 feet walking time) followed by PRP (63.83% in VAS, 63.96% in WOMAC and 44.83% in 50 feet walking time). Steroid showed maximum improvement at 6th week but when 6th week and 12th week was compared it showed a dip in improvement (i.e -39.57% in VAS, -41.32 % in WOMAC and -24.72% in 50 feet walking time.

Key Words: Steroid, PRP, Hyaluronic acid, knee osteoarthritis.

0-41 Outcome of Botulinum Toxin Type A Injection into the Gastrocnemius and Soleus Muscle with Spastic Equinus: Manual Needle Placement Compared with Ultrasonography Guidance: A Prospective Clinical Study.

Keshab Mandal

Dept of PMR, IPGMER, Kolkata

Objective: To compare the efficacy of Botulinum Toxin injection by manual method using anatomical landmark versus USG guidance in gastrocnemius and soleus muscles of patients with spastic equines.

Design: Prospective clinical study.

Subjects: A total of 65 patients with spastic equines who were scheduled to receive botulinum toxin type A injection into the gastrocnemius and soleus muscle. 5 patients didn't turn up for follow-up, hence excluded from the study.

Methods: Ethical committee clearance was taken from Institutional Ethical Committee After randomization into two groups, each patient was injected into three sites at each head of the gastrocnemius muscle and soleus. The manual needle placement group (n=30) underwent injections using anatomical landmarks and palpation. The ultrasonographic guidance group (n=30) underwent injections using ultrasonographic guidance. Outcome measured modified modified aswath scale, gait parameters(step length, stride length, heel strike and 10 meters walk test),squatting.

Results: The outcome of this study to be presented during presentation at conference.

Conclusion: Using ultrasonographic guidance outcome is better in respect to reduction of spasticity and improvement of functional parameters. .

Keywords: botulinium toxin, spastic equinus, manual needle placement, ultrasonographic guidance, gastrocnemius medialis, gastrocnemius lateralis, soleus.

0-42 Clinicaland Radiological Corelation In Rehabilitation of Glenohumeral Instability And Its Implication In Rehabilitation

Sayani Haldar

Dept of PMR, IPGMER, Kolkata

Introduction: Glenohumeral instability can be diagnosed clinically as well as radiologically . M.R Arthrogram can pick up the structural pathology, causing instability very distinctly . So if M.R Arthrogram is used in clinically suspected cases of glenohumeral instability along with clinical confirmation ,the diagnosis can be more accurate and decision regarding justification of rehabilitative management can be taken.

Aims & Objectives :

A. Assessing relationship between clinically diagnosed and MR confirmed cases of glenohumeral instability

B. TakingDescision about continuation of conservative and rehabilitative management in a case of glenohumeral instability

Study Design: Cross-sectional descriptive study.

Study Place: Department of PMR , Department of Radio diagnosis, IPGMER & SSKMH

Sample Size : 50

Study Duration: 1 Year

Inclusion Criterion :

1. At least one episode of glenohumeral instability with or without pain
2. Positive provocative tests
3. Age of >/=18 years.

Exclusion Criterion:

1. Fracture in the shoulder area.
2. Overlying skin or articular infection.
3. Coagulation defects or anticoagulant therapy.
4. Allergy to contrast material.
5. General contraindications to MRA examination
6. Previous surgery of shoulder.

Method & Mterials: After ethical committee clearance ,patients of inclusion criterion underwent clinical examination and M.R arthrogramthen results are compared

Result: Statistically significant accuracy is seen in diagnosis by MR Arthrogram ,cases can be better allocated for continuing rehabilitation programmeand for surgical repair.

Conclusion: M.R Arthrogram can more accurately diagnose glenohumeral instability and by picking up precise structural defect it helps in better management.

0-43 Assessment of Comparative Efficacy of Caudal-Epidural Steroid Injection In L5 Versus S1 Radicular Pain Due To Prolapsed Intervertebral Disc

Biswas Labani

Dept of PMR, IPGMER, Kolkata

Introduction: Now a days caudal-epidural steroid injection is one of the most commonly used routes of intervention in physiatry for management of radicular pain due to PIVD. There were lots of data regarding efficacy of the caudal epidural steroid injection but there was paucity of data regarding comparative efficacy in L5 versus S1 radicular pain.So, this is a humble attempt to assess the comparative efficacy of caudal epidural injection in L5 versus S1 radicular pain due to PIVD.

Aim & Objective:

1. To look for comparative efficacy of caudal-epidural steroid injection in L5 versus S1 radicular pain.

Study Design:

Two arm Parallel group open level randomized controlled trial.

Study Place: Dept. Of PMR, IPGMER & SSKMH

Sample Size: 40

Study Duration: 18 Months

Inclusion Criteria:

1. Symptomatic disc prolapsed diagnosed with MRI scan
2. Disc prolapse of either L4-5 or L5-S1
3. Age more than 18
4. VAS Score more than 7
5. VAS 4-7 with difficulty of ADL

Exclusion Criteria:

1. Symptomatic multiple disc level
2. Spondylolisthesis
3. Spinal stenosis
4. Motor deficit < 4/5

Method And Materials:

After taking institutional ethical committee clearance the patient was divided into two groups and were given caudal-epidural steroid injection with methylprednisolone acetate, 2%lignocaine,0.25% bupivacaine and normal saline after taking consent. Assessment of both group were done at 0,1 and 3 months.

Results: Statistically significant improvement in both VAS and Oswestry Disability Index were found in both groups but there is no statistically significant difference in outcome between two groups.

Conclusion: caudal epidural steroid injection is not only quite effective but also equally effective in both levels of radicular pain.

Keyword: Radicular pain, caudal-epidural steroid injection, comparative efficacy.

0-44 Prevalence of Disabilty In Low Back Pain Patients: A Descriptive Cross Sectional Study

Kaustav Basu Thakur

Dept of PMR, RIMS, Imphal

Introduction: Low back pain affects up to 80% of the population at some time during their active life. Oswestry Disability Index (ODI) is the most commonly used outcome measure used in low back pain. The aim of the study was to find out the prevalence of disability among low back pain patients.

Materials and method: A descriptive cross sectional study was conducted on 104 patients with low back pain admitted in PMR department, RIMS. Detailed demographic data were collected including participants' age, sex, occupation, duration of pain. Disability was calculated from the Oswestry Disability Index questionnaire.

Result: A total of 104 patients were recruited with mean age of 46.36±12.13 year. Male constituted 44.2%(46) and female 55.8%(58). Among the occupations, housewives were more affected 39.4%(41). Age group in the range of 45-54 year were most affected with maximum number of patients having PIVD at L4-5 level. Out of 104 patients, 44 (42.3%) patients have ODI score of 41-60 which is of moderate disability. Minimal disability was found in 5 (4.8%) patient and 8(7.7%) patients had ODI score of 81-100 (bed ridden).

Conclusion: Low back pain is an extremely common musculoskeletal condition that contributes to impairment and disability.Maximum number of patients had moderate disability on ODI and can be used for quantifying disability in person with low back pain.

Key words: Low back pain, PIVD, Disabilty, Oswestry Disability Index.

0-45 Problems Faced By Bilateral Lower Limb Amputees

Swati Sinha

Dept of PMR, SVNIRTAR, Cuttack

Introduction: Bilateral lower limb amputations are currently being performed much more frequently than in the past, largely as a result of an aging population with an increased incidence of peripheral

vascular disease and diabetes mellitus. Rehabilitation programmes for amputees are not simply prosthetic services, but must take account of the whole patient, their goals and ambitions.

Objective : to evaluate the clinical features and problems faced by bilateral lower limbamputees.

Material and Methods:A prospective study of 40 bilateral lower limb amputees was carried out in the rehabilitation department of swami vivekanand national institute of rehabilitation training and research, Cuttack, odisha.The clinical features obtained included the causes of amputation, level of amputation,concurrent medical problems, and stump condition.Outcome measures were obtained using theactivities of daily living (ADL) index, the Frenchay Activities Index (FAI), and mobility grading withprostheses or wheelchair.

Result: Of10amputees,whowerewheelchairambulators, only one was able to perform wheelchairtransfers independently and five were independent wheelchair ambulators. Using the ADL index and FAI, there was no significant difference in scores according to the level of amputation ($p>0.05$), but the scores of community prosthetic ambulators were significantly higher than those of wheelchair ambulators ($p<0.05$).

Conclusion: Any amputation is life-altering, but people with bilateral amputations face a particularly complicated process of physical and emotional rehabilitation. The long-term goal is usually being able to walk again with prosthetic legs and be maximum self-reliant and live life with dignity.This study concludes that overall independence in ADL afterbilateral lower limb amputation improved with young age and prosthetic mobility.

0-46 Implication of Whoosh Test In The Effectiveness of Caudal Epidural Injection

Manilal Nikhil

Dept of PMR, IPGMER, Kolkata

Introduction: Whoosh test assisted caudal epidural injection has been the trend for years, but with the advent of modern medical imaging devices, the efficacy of this clinical aid is being put to question. Whoosh test is the injection of air into the caudal epidural space with simultaneous auscultation over the thoracolumbar spine to confirm the needle position in a clinically assessed injection site.

Aims & Objectives: Assessment of implication of Whoosh test by comparing the clinical impression of correct needle placement with the use of the whoosh test, using fluoroscopic imaging to identify the correct needle placement

Study Design: A cross sectional analy tical study.

Study Place: Dept. Of PMR, IPGMER & SSKMH

Sample Size: 30

Study Duration: 6 months

Inclusion Criteria:

- Symptomatic prolapsed disc diagnosed with MRI scan

Exclusion Criteria:

- Power < 4/5in L4/L5/S1 myotome
- Uncontrolled diabetes mellitus

Method And Materials: After getting ethical clearance

for the study, informed consent from the patient was taken. After careful assessment of bony landmarks needle insertion into caudal epidural space was attempted, the clinical impression was recorded , then Whoosh test was done and recorded. The exact needle placement was identified by fluoroscopic imaging using contrast dye.

Results: Significant number of patients had correct needle placement with both whoosh test positive and clinical impression but the true positive cases were more in whoosh test positive ones compared to clinical impression but there were also a significant number of false positive .

Conclusion: The study shows that whoosh test is superior to sheer clinical impression in finding the correct caudal epidural site or in ruling out incorrect site but not a flawless method for confirmation of needle position or not an alternative to the fluoroscopic guidance.

Keyword: Caudal-epidural steroid injection,whoosh test.

0-47 Study of "Prognostic Significance of Cmap (Compound Motor Action Potential) Amplitude and Onset-Latency In Acute Idiopathic Unilateral Lower Motor Neuron Type of Facial Nerve Palsy."

K.Chitrarasu

Department of Physical Medicine, Madras Medical College, Government Institute of Rehabilitation Medicine, Chennai.

Objective: To study the Prognostic significance of Amplitude and Onset-Latency of Compound Motor Action Potential(CMAP) from Evoked-EMG on facial nerve stimulation in Acute Idiopathic Unilateral Lower motor neuron type of Facial nerve palsy(unilateral Bell's palsy).

Material and Method: Forty two subjects diagnosed as unilateral Bell's palsy had their Evoked- EMG on Facial nerve stimulation performed between 10-30 days of onset of palsy. Base to peak Amplitude and Onset-latency of CMAP were recorded by Bipolar Discoid Surface Electrodes(made of silver-chloride) from facial muscles-Nasalis,Orbicularis-Oculi and Orbicularis-Oris both on paretic and sound side of the face. These electro-diagnostic variables were correlated with clinical scale for recovery of facial nerve function, the House-Brackmann Facial Nerve Grading Scale (HBFNGS) obtained at the end of 6 months of onset, by Pearson correlation-coefficient.

Results: Complete data were obtained from 42 subjects (24 males+18 females) diagnosed as unilateral Bell's palsy whose age was between 20-59 years. The Pearson correlation between CMAP-Amplitude and HBFNGS (grade I-VI) is $r = -0.811$. The Pearson correlation between CMAP-Onset latency and HBFNGS (grade I-VI) is $r = +0.066$.

Conclusion: With reference to clinical grading(House-Brackmann Facial Nerve Grading Scale) prognostic significance of Amplitude of CMAP in unilateral Bell's palsy is of moderate degree.

In prognostication of unilateral Bell's Palsy, the correlation of the Amplitude of CMAP is more significant than the correlation of Onset-latency, with reference to clinical grading of facial nerve function (House-Brackmann Facial Nerve Grading Scale).

Keywords: Bell's palsy, CMAP (compound motor action potential), House-Brackmann Facial Nerve Grading Scale (HBFNGS).

0-48 Study the Change in Analgesics Usage Pattern in Knee Osteoarthritis Following Viscosupplementation

Banoth Kiran Kumar

Dept of PMR, V.M.M.C Safdarjung Hospital, New Delhi

Introduction: Osteoarthritis(OA) is a condition characterized by focal areas of loss of articular cartilage within the synovial joints, associated with hypertrophy of the bone(osteophytes and subchondral sclerosis) and thickening of the capsule. Treatment options include analgesics(paracetamol, nsaid's and opiods), physical therapy, orthotic devices, injections(intra articular hyaluronic acid, corticosteroid and PRP) and surgery.

Objective: The main objective of this study is to assess the frequency of analgesics, quantity of analgesics, change in molecule and improvement in pain and function.

Methods: It is a prospective cohort study. 60 diagnosed cases of OA knee who received intra articular viscosupplementation satisfying inclusion and exclusion criteria are enrolled in the study. At baseline(day 0), historical assessment regarding frequency of usage of analgesics, quantity(dose×days), change in molecule and improvement in function(using WOMAC) and pain(using VAS) one month preceding to viscosupplementation is recorded. After 3 days window

period following injection, the patients are assessed at 4, 8 and 12 weeks for frequency of usage of analgesics, quantity, change in molecule and improvement in function and pain. Assessment tools – Quantity of analgesics(dose ×days), Frequency of analgesic usage, Change in analgesics molecule,VAS pain scale(0 to 10) and WOMAC index for pain, stiffness and physical function.

Results: Some patients of the study are under follow up. Results and statistical analysis will be possible after completion of follow up of remaining patients and will be presented at time of conference.

0-49 Study of Motor Function And Neuroimaging In Cerebral Palsy

Dhirendra Kumar Singh

Dept of PMR, VMMC and Safdarjung Hospital, New Delhi

Introduction: Cerebral Palsy(CP) is the most common physical disability in children. Cerebral palsy is a disorder caused by brain damage before or during birth, or during the early years of life, that results in loss of voluntary muscular control and coordination. The development of neurological imaging techniques like magnetic resonance imaging(MRI) enables identification of location and extent of brain lesion and help to correlates with motor function and type of cerebral palsy.

Materials And Method: It is an observational cross sectional study conducted in the Department of Physical Medicine and Rehabilitation, VMMC and Safdarjung Hospital, New Delhi. The subjects included all the cases clinically diagnosed as cerebral palsy between age group 2-12 years fulfilling inclusion criteria. To assess gross motor function, fine motor function and neurological(MRI) grading following assessment parameter were used- Gross motor Function Classification System (GMFCS), Manual Ability Classification System (MACS), Grading of magnetic resonance imaging findings(Cioni et al).

Results: Some patients are under evaluation so final result will be discussed at the time of presentation.

0-50 Comparison of Standard Outpatient Screening Tools and Nerve Conduction Studies For The Diagnosis of Diabetic Peripheral Neuropathy

Saraswathi Ramanathan

Dept of PMR, CMC, Vellore, Tamil Nadu

Introduction: Diabetic peripheral neuropathy(DPN) is a common complication of diabetes mellitus, leading to foot ulcers, gangrene and amputation. Reported prevalence of DPN ranges from 10-90%, due to differences in screening tools and gold standard used. This study aims to compare various outpatient screening tools and nerve conduction studies(NCS) to diagnose DPN.

Objectives:

1. To study occurrence of DPN based on standard outpatient clinical tools and NCS.
2. To compare results of NCS with biothesiometry, Semmes Weinstein monofilament(SWMF) testing and MNSI (Michigan Neuropathy Screening Instrument).
3. To study sensitivities and specificities of the above screening tools, sural radial amplitude ratio (SRAR) and minimal F wave latency, using NCS as gold standard.

Methods: In a cross sectional observational study, on 48 patients with type 2 diabetes, excluding patients with ulcers, amputations and other causes of neuropathy. MNSI, biothesiometry, SWMF and NCS including F waves and SRAR calculation were done and occurrence of DPN calculated. Results of the above were compared using Chi square test and diagnostic accuracies were calculated taking NCS as gold standard.

Results and Conclusions: Occurrence of DPN was 29.1%, 56.25%, 41.66% and 8.3% based on NCS, biothesiometry, MNSI and SWMF respectively. Neuropathy based on NCS was significantly related to MNSI ($p=0.041$) and biothesiometry ($p=0.045$). MNSI, biothesiometry, SWMF, SRAR and minimal F wave latency had a sensitivity of 64.3%, 78.6%, 14.3%, 100% and 78.6% and specificity of 67.6%, 52.9%, 95.1%, 20% and 67.6% respectively, with reference to NCS. NCS, though considered the gold standard for DPN diagnosis, is cumbersome, time consuming, painful and needs expertise. Biothesiometry, SRAR and F wave together had a sensitivity and specificity of 71.4% and 91.2% respectively. Hence, combination of these three evaluations, can help to limit the need for conventional NCS to selected cases.

Key Words: DPN, biothesiometry, NCS, SRAR, F wave

0-51 Tinetti's Poma Versus Horak's Bes Test: Correlation With Other Tools of Balance & Functional Assessment In Geriatric Age Group And Pitfalls – An Analytical Observational Study

Padmapriya P

Dept of PM&R, Government Institute of Rehabilitation Medicine, K K Nagar, Madras Medical College, Chennai

Back ground: Since elderly population is growing gradually and the risk of fall increases with advancing age, it is important to be predicted and prevented. Despite the availability of wide range of clinical tools to assess static and dynamic balance and their function, it is still difficult to select one to be followed.

Objective: To correlate Tinetti's Performance Oriented Mobility Assessment (POMA) and Horak's Balance Evaluation System Test (BEST) with other clinical tools of balance and functional assessment and to analyze their pitfalls.

Materials & methods: 46 elderly subjects (age:60to74, both sex) with purely age related balance complaints were assessed with clinical tools-POMA, BEST, Berg Balance Scale(BBS), Timed Up and Go(TUG), Unipedal Stance(UPS), Four square Step(FSS), Timed Sit& stand(TSS) and Functional Reach Test(FRT) and subjective assessment was done with Activity specific balance confidence(ABC). Spearman's rank correlation coefficient was used to analyze the data with significance level of 5%.

Result: There was Statistically significant positive correlation between POMA & BEST (rho/p:0.64) as well as each individually with other tools mentioned but with varying strength(POMA:0.72-0.96, BEST 0.58-0.83)except statistically significant strong inverse correlation with TUG, FSS, TSS (POMA: 0.74-0.88, BEST:0.82-0.97).

Conclusion: Despite both POMA & BEST were well correlated with other tools, POMA showed stronger correlation with most of them especially with functional and subjective assessments, except with few which themselves were parameters of BEST. Though BEST directs towards balance system to be targeted, it is yet to be validated. This study concludes that POMA can be used as a single best clinically available balance assessment tool in elderly.

Key words: Performance Oriented Mobility Assessment (POMA), Balance Evaluation System Test (BEST), Geriatric Assessment, Spearman's rank correlation coefficient.

0-52 The Effects of Dextrose Prolotherapy Versus Corticosteroid Injections In Patients With Periarthritis Shoulder

Suvrat Gupta

Dept of PM&R, NILD, Kolkata

Introduction: Periarthritis of shoulder occurs in approximately 2% to 5% of the general population, leading to functional limitations. There are many treatment modalities to treat Periarthritis shoulder. Corticosteroid injections are usually given in the shoulder joint for the treatment, but dextrose prolotherapy is a newer treatment modality which causes cell proliferation.

Objective: To determine the effects of Dextrose prolotherapy injection (12.5% Dextrose in 1% Lignocaine total volume 20ml) and local corticosteroid injection (Triamcinolone Acetate 40mg/ml -1ml) in cases of Periarthritis shoulder.

Material and methods: In a prospective randomized study being conducted at National Institute for Locomotor Disabilities (Divangjan)-Kolkata 700090, a total of 46 patients with Periarthritis shoulder aged 30-60 years and of both genders, selected for dextrose prolotherapy or corticosteroid injections in shoulder, randomly. Ultrasonography of the shoulder was done in all patients before including in the study. The outcome parameters, which are visual analogue scale (VAS) for pain, shoulder range of motion (goniometry), pain free shoulder abductors isometric strength test by hand held hydraulic dynamometer, will be assessed periodically on 2nd, 4th and 6th weeks post injection. The total duration of study is 16 weeks (September, 2016 to December, 2016).

Results and conclusions: Study is ongoing and expected to be completed by December, 2016. Data will be analyzed by SPSS version16 using chi square test for qualitative variables and t-test for quantitative. P value is taken <0.05; confidence interval= 95%. Results and conclusions can be analyzed at the end of the study.

Key words: Periarthritis shoulder, dextrose prolotherapy, corticosteroid injection

0-53 The Effect of Ankle Foot Orthosis on Energy Expenditure During Walking In Children With Spastic Diplegia Due To Cerebral Palsy

Baker Sharafuddin

Dept of PM&R, NILD, Kolkata

Objective: The aim of the study was to find the effect

of ankle foot orthosis on energy expenditure during walking in children with spastic diplegia due to cerebral palsy.

Method: 26 subjects with spastic diplegic cerebral palsy who could ambulate with and without the help of orthosis were selected after screening with inclusion criteria. The energy expenditure of these patients during ambulation with and without Orthoses was measured using the K4b2 machine. The Statistical Analysis was performed with help of Epi Info (TM) 3.5.3. EPI INFO. T-test, chi square test and correlation tests were used to study the parameters of oxygen cost, oxygen pulse, heart rate and energy expenditure.

Results: The use of AFO resulted in decreased energy expenditure in 73 % of patients in the first day itself. In the sequential assessment, these patients showed further decrease in energy expenditure with AFO use. The patients who initially showed an increase of energy expenditure also showed a decrease in the raise in energy expenditure during walking in their subsequent analysis. O2 cost also showed a positive correlation with energy expenditure. Heart rate wasn't much related to use of AFO, rather it showed an increase in the assessment done second in the same day (among walking with and without the AFO). There was no linear relation or correlation between O2 pulse and other parameters of the study.

Conclusion: AFOs are an important intervention in the treatment of spastic diplegics. It can help decrease the energy expenditure and improve speed of walking in most patients when prescribed along with other needful therapies like exercises, antispastic medications etc. O2 cost showed positive correlation with energy expenditure analysis. In patients with increased energy expenditure with AFO use, the mean difference between energy expenditure with and without AFO decreases suggesting long term benefits that AFO could offer. A study of longer duration with more patients should be conducted to view the full benefits of AFO in children with spastic diplegic cerebral palsy.

Key words: Spastic Diplegia, Cerebral Palsy, Energy Expenditure, Oxygen pulse, Oxygen cost, K4b2, AFO in cerebral palsy

0-54 Association Of Lower Limb Deformity With Rickets.

Ameya Deepak Joshi

Dept. of PMR, AIIPMR, MUMBAI.

Introduction: Vitamin D deficiency is considered to be commonest nutritional deficiency. The manifestations of this in children are seen in the form of different skeletal changes and deformity. The study I'm presenting was done to analysedifferent lower limb deformities in children and their association with rickets.

Materials and Methods: A descriptive study was carried at AIIPMR, Mumbai. Children up to 5 years of age with clinical features of rickets were screened for radiographic changes and laboratory parameters. Children were studied in different groups based on age; gender; type of deformity; laboratory findings of serum calcium, phosphate, alkaline phosphatase & vitaminD.

Result: It was found that 94.2% children were having rickets. Female children were on higher side with 2 to 3 years of age as commonest age of presentation. Genu varum was found to bethe commonest deformity in all groups. Maximum patients had Vitamin D deficiency levels in blood with decreased serum calcium and phosphate levels and increased alkaline phosphatase. 7.14% had Vitamin D toxicity which was related to previous treatment. 72% patients had vitamin D deficiency and 67% had combined deficiency of vitamin D and calcium.

Conclusion: In the conducted study it was found that rickets is commonly associated with different lower limb deformities in children. Genu varum is the commonest lower limb deformity due to rickets. Calcium deficiency also contributes in addition to vitamin D deficiency leading to rickets and associated deformities.

0-55 Guillian Barre Syndrome: Rehabilitation Outcomes and Predictors of Recovery

Chugh Sushil

Dept of PM&R,

Introduction: Guillain-Barre syndrome (GBS) is one of the most common polyneuropathy causing major disability and respiratory failure. Respiratory complications are the main cause of death. We studied the outcome in Guillain-Barre syndrome following combined neurological and rehabilitation management using standardized disability measures and factors which can affect this outcome.

Material and Methods: A retrospective study was performed of 32 patients with Guillain-Barre Syndrome admitted over a 5 year period to the neurological rehabilitation unit. Disability on admission and discharge

were measured using the Barthel Index (BI), Hughe's Disability Scale for GBS, Medical Research Council (MRC)sum score And Fatigue Severity Score. Data was collected to identify any factors affecting outcome such as age at onset, duration of ventilation, total in-patient stay, duration of stay at the neurological rehabilitation unit, symptoms, signs, electrophysiological findings etc.

Results: Most patients were of age group 20-30yrs. Duration of stay in rehabilitation unit ranged from 4 to 40 days. Patients with lower Barthel Index at admission had longer duration of stay. Around 96% of patients received IVIg for 5days. Barthel index improved in 80% of patients. Hughes disability score improved in 90% of patients.MRC sum score improved in all the patients.

Conclusion: Patients with GBS have disabilities which are amenable to change with rehabilitation. Significant improvement in function occurred during rehabilitation. Early rehabilitation can be a key to better functional outcomes.

0-56 Conservative Management Of "Lumbar Canal Stenosis" A Randomised Control Study

Sanyal Kumar

Dept of PM&R, KGMU, Lucknow

Background: Lumbar canal stenosis is a degenerative process mainly affects the age group more than 50 years of age. Due to narrowing of canal resulting ischemia to adjacent spinal segment can lead to neurogenic claudication.

Objective: To compare outcome of physical therapy alone (PT group) and physical therapy with Drug therapy (Aspirin 75 mg at bed time + Xantinol nicotinate 150 mg twice a day after meal) (PT+DT group) in conservative management of patients with lumber canal stenosis.

Methodology: Prospective randomised control study in the Dept. of Physical Medicine and Rehabilitation, KGMU, Lucknow, U.P., India. During 18 months, 68 subject randomised, age and sex matched. Assessment of Pain was done by Numerical pain rating scale (NPRS), Claudication Distance (by Treadmill walking), and Disability by Oswestry Disability Index(ODI) and Roland Morris Disability Index(RMDI) at 3weeks, 6 weeks and 3 months interval.

Results: 68 patients were included in this study. The age of PT(30 patients) and PT+DT (38 patients)groups ranged from 45-72 yrs and 48-70 yrs respectively with mean (± SD) 54.00 ± 9.55 yrs and 58.21 ± 10.24 yrs respectively, and median 50 yrs and 52 yrs respectively. Mean Claudication Distance, NPRS, ODI and RMDI scores were 565.50 ± 322.387.29 ± 1.47, 47.76 ± 12.48 and47.63 ± 12.21respectively which improved to 1340.79 ± 541.50, 1.63 ± 1.22, 15.39 ± 9.27and 18.37 ± 11.48 respectively at 12 weeks in PT+DT group which was significantly improved($p<0.001$) as compared to PT alone group.

Conclusion: At Final evaluation improvement in the CD, NPRS, RMDI and ODI was higher in PT + DT group as compared to PT alone group.

Key words: lumbar canal stenosis, conservative management, drug therapy, exercise program

0-57 A Comparison of Effectiveness of Ultrasonography And Fluoroscopy As A Therapeutic Imaging Modality In The Management of Lumbar Facet Arthropathy

Rachit Gulati

Department of PM&R, R.G.KMC&H

Background And Aims: Lumbar zygapophyseal joint arthropathy is one of the most common causes of low back pain in adults. Historically, C-arm/Fluoroscopy has served as an image guidance tool in intra-articular facet joint injections, however, now Ultrasound guidance is also a viable option. Therefore, a comparative study was conducted to comparethese two imaging modalities.

Methods: We selected 62 patients who satisfied our inclusion and exclusion criteria. They were initially given a diagnostic block and those having ≥ 50% relief after it were randomly allocated into Ultrasound group (I) with mean age 38.45 years, mean BMI of 26.13 kg/m2 and having 18 females and 13 males and fluoroscopy group (II) with mean age 40.12years, mean BMI of 25.21 kg/m2and 15 females and 16 males. Both groups were given a standard rehabilitation program.

Average time of intervention, Visual Analogue Scorefor Pain and Oswestry Disability Index at 2,4,12 and 24 weeks were studied.

Results: The procedure in USG group (I) which involved longitudinal followed by transverse facet view injectionaveraged 4 minutes and 22 seconds and Fluoroscopygroup (II) was 5 minutes and 37 seconds. There was statistically no difference between the two groups in terms of VAS and Oswestry Disability Index at 2 weeks (p=0.307 and 0.422 respectively), 4 weeks (p=0.532 and 0.169 respectively), 12 weeks (p=0.150 and 0.653 respectively) and 24 weeks (p=0.652 and 0.210 respectively) at 95% confidence interval where $p<0.05$ is considered significant.

Conclusion: Both groups show significant improvement in pain and disability after 2,4,12 and 24 weeks however there wasno significant difference between USG guided transverse view and fluoroscopy guided intra-articular lumbar facet joint injection. Therefore we conclude that USG guided transverse approach is cheaper, quicker, feasible and minimizes exposure of radiation to patient as well as interventionist.

Acknowledgement of Funding Source etc: Nil

Abstracts - Poster (P1 - 24)

P1 Rehabilitation and Prosthetic Fitting In A Paraplegic Patient With Transtibial Amputation

Dhinla.S

Madras Medical College, Chennai

Objective :

1. To assess the need of prosthesis and orthosis for therapeutic ambulation
2 To assess the challenges for a successful prosthetic fitting in a paraplegia with concomitant transtibial amputation

Material and Method:

Clinical assessment by :Spinomotor examination,Stump examination

Assessment of function by: ASIA Impairment scale, Functional Indepedence Measure (FIM),

Walking assessment by: Spinal Cord Injury Functional Ambulation Inventory, 6 - Minute Walk Test

Wheel chair Mobility Assessment

Discussion: The combination of paraplegia with a transtibial amputation is a complex injury that makes the rehabilitation process a difficult one.This is a case of L1 traumatic paraplegia with right transtibial amputation, admitted with ASIA A and FIM Score of 64.After rehabilitation, patient achieved limited indoor ambulation with Below Knee Prosthesis with Quadrilateral Socket Extension on right side and Hip Knee Ankle Foot Orthosis(HKAFO) on Left side.

Conclusion: Lack of sensation and muscle power in a paraplegic patient with transtibial stump is a challenge for prosthetic fitting. This case represents a successful attempt in the rehabilitation of paraplegia with transtibial amputation and it broadens the range of solutions that can be offered to patients.

Keywords: Paraplegia, Transtibial amputation,Below Knee Prosthesis with Quadrilateral Socket Extension

P2 Challenging Case For Rehabilitation

RM Kamakshi,

Dept of PMR, Government Institute of Rehabilitation Medicine, Madras Medical College, Chennai

Objective: Effective rehabilitation of a challenging case of traumatic paraplegia with multiple fractures in lower limb

Background: 29 years old female a case of traumatic paraplegia due to fall from second floor who sustained L3 burst fracture with cauda equina compression with fracture of both calcaneum and left proximal tibial plateau fracture (grade 4) with post operative stiffness, got admitted for rehabilitation. Clinical assessment is done by spino motor and musculoskeletal Examination, functional assessment by ASIA and FIMS SCORE, ambulatory motor index and assessment of complications. Even though motor power of hip flexors, knee extensors, ankle dorsi flexor and plantar flexors improved to grade 3/5 by MMT, ambulation was difficult due to associated fractures. Patient was made ambulant by using Ischial weight relieving calipers on left side and Patellar Tendon Weight relieving caliper on right side in order to change weight bearing from foot and knee joint to hip joint.

Conclusion : Patient achieved walking with ischial weight relieving caliper on left and patellar tendon weight relieving caliper on right side with single elbow crutch

Keywords : Paraplegia, Cauda equina, tibial plateau, ischial weight relieving caliper, patellar tendon weight relieving caliper, ambulatory motor index

P3 Schizencephaly: A Case Report

Utpalendu Debnath

Dept of PMR, RIMS, Imphal, Manipur

Schizencephaly is a congenital condition characterized by cerebrospinal fluid filled clefts that extend from the pia surface of the cerebral hemisphere to the ependymal surface of the ventricle. A 1 year old male child was admitted with the history of delayed developmental milestone and spasticity of both upper and lower limbs since birth. The proper antenatal and natal history could not be obtained as the child was adopted. He was previously diagnosed as a case of cerebral palsy. On physical examination, the child had microcephaly, no dysmorphism of face. Anterior fontanelle was normal. Sutures were normal and there was a global delay in the developmental milestones. Muscle tone of the upper and lower limbs showed spasticity with normal reflexes. Vitals signs were normal. Anthropometric

measurements of weight and length were within normal limits. Plain CT scan of the brain showed wide CSF filled cleft in left frontal lobe and another narrow cleft in right parieto temporal lobe extending from cortex to lateral ventricles. The child was diagnosed as a case of bilateral schizencephaly. The incidence of schizencepaly is very low 1.5 in 1,000,000 live births. Only few cases have been described in the literature. The etiology of such phenomenon is also poorly understood.

Key words: Schizencephaly, Cerebrospinal fluid, Microcephaly, Dysmorphism, Anterior fontanelle, Anthropometric measurement, CT scan

P4 A Rare Case Presentation Of Non Traumatic Paraplegia – Space Occupying Lesion –Neurocysticercosis (D 12)

M.Devika

Department of Physical Medicine, The Madras Medical College, Government Institute of Rehabilitation Medicine, Chennai

Introduction*:* A 42 year male presented with insidious onset of girdle pain with radiation to left thigh, progressive numbness of both lower limbs,sudden inability to walk,intermittent episodes of urinary incontinence for one and half years duration.MRI finding was intradural intramedullary space occupying lesion in D12 segment of conusmedullaris.In Government Medical College hospital,Chengalpattu, D11-L1 laminectomy done and SOL excised and histopathological impression was cysticercosis -spinal cord.Patient was provided with oral Albendazole for two months and referred to GIRM for rehabilitation with paraparesis.

In GIRM,physiatric assessment done and intensive rehabilitation provided for one year with good nursing care,therapeutic exercises like ROM, stretching and strengthening exercises, electrical stimulation,bladder and bowel training,gaittraining,spinal and ankle foot orthosis and recovery assessed.

Objective : To study outcomes of rehabilitation of a non -traumatic paraplegic operated for space occupying lesion.

Materialsand Methods: The muscle power,sensation, ambulatory motor index,bladder and bowel,sexual,am bulation,pain,FIMS and psychology of the subject was assessed.

Results: The muscle power of Right lower limb improved from -2/5 to 3/5 and Left lower limb – 1/5 to 3/5,ambulatory motor index improved from 33.3 to 66.64,only mild paresthesia remnant over left L5 and S1,incontinant bladder and bowel regained near normal continency but no sexual recovery and with bilateral Ankle Foot Orthosis improved as an in doorambulator. VAS for pain improved from 8/10 to 2/10,FIMS from 72/126 to 108/126 and psychologically improved from depressed state to acceptance of his condition.

Conclusion: Based on above study,due to correct diagnosis,prompt surgical intervention and follow up and intensive rehabilitation,subject showed remarkable improvement and followed till date for loci of neurocysticercosis in other organs.

P5 Successful Conservative Management Of Disc Extrusion

Balamurali D

Dept. of PMR, Government Institute of Rehabilitation Medicine, Madras Medical College, Chennai

Objective: To study the effective conservative management of lumbar disc disease

Background: 28 years old male patient with complaints of severe LBA, radiating to left leg, walking with antalgic gait, with listing to left side was evaluated and MRI shows broad based posterocentral disc extrusion at L4-L5, L5-S1, level causing central canal stenosis and compression upon the caudaequina, bilateral recess stenosis and compression upon traversing L5 nerve roots. Patient was advised surgery by spine surgeons at private hospital for which the patient was not willing and came here for non operative management. He was managed with strict bed rest, NSAIDS, muscle relaxants and continuous pelvic traction for about 16 to 17 hours per day for 3 weeks (10kg weight used for traction)

Conclusion: Patient was discharged with normal gait, correction of listing and pain relief. Appropriate conservative management and home program can avoid surgery

Keywords: Lumbar disc disease, pelvic traction, antalgic gait, muscle relaxants, canal stenosisPMR

P6 Locomotor Disability Identified in School-Going Children at Camps held bythe Sarva Shiksha Abhiyan in Kozhikode District

Neena T V

Dept of PMR, Govt. Medical College, Kozhikode

Sarva Shiksha Abhiyan (SSA) is a Government of India's flagship programme for achievement of

universalisation of elementary education in a time - bound manner. The SSA is conducting various camps to identify and address needs of differently-abled children attending Government schools. Our department had the privilege to attend 10 such camps in various places of Kozhikode. We identified many different types of locomotor disability due to cerebral palsy, CTEV, myopathies, short stature, disorders of the spine and spinal cord, osteochondromatosis, rickets and the like. We intervened with appropriate advice on orthoses, therapeutic exercises, mobility aids and assistive devices to these children taking the parents, special educators and teachers into confidence.

Key words: Sarva Shiksha Abhiyan, camps, locomotor disability in school-going children

P7 Rehabilitation Considerations In A Patient With Brachial, Plexus Injury With C5 C6 Root Avulsion

Thulasi S,

Dept. of PMR, Kozhikode Medical College.

Abstract: Adult traumatic brachial plexus injury is a crippling condition that requires management in a timely fashion for optimal functional recovery and pain control. The current surgical options consist of primary repair, nerve transfers, and muscle and tendon transfers. The pre- and postoperative care of these patients is ideally managed by a team with expertise in neuro rehabilitation.

This is a case study of a 50 years old right- handed person who suffered traumatic brachial plexus root avulsion of (R)C5 C6 along with fracture of the scapula and the scaphoid(R). He was treated surgically with Oberlin type 2 nerve transfer followed by trapezial transfer to the head of the humerus. Following this, proper rehabilitation measures were given for maintaining ROM of joints, mobilisation of scar tissue, maintanance of good joint position and pain management and now he is almost independent in his ADL.

Key words: brachial plexus injury, Oberlin type 2 nerve transfer, root avulsion, trapezial transfer, rehabilitation measures

P8 Unity is Strength- an Observational Visit to an Institution of the Blind

Sadikali MT

Dept of PMR, Govt. Medical College, Kozhikode.

Finding and maintaining a job is a challenge for people with disabilities and their participation in work is poorer than in the normal . I visited an institution in rural Wayanad , which is being run by a totally blind couple, the male member being well-educated . The inmates are all women, totally blind and unmarried. This organization improved the self- sufficiency and life skills of these women. The workers do Braille proof-reading and make paper covers for medicine tablets. As these individuals work with similarly - disabled people, the atmosphere inside the institution is one of harmony and empathy. The life of this dedicated couple shows that vocational rehabilitation measures can be instituted even by differently- abled people.

Key words: vocational rehabilitation, blind, differently-abled, self-sufficiency, organization

P9 A Mechanical Feedback Device To Prevent Pressure Sores In Paraplegics

Faiz Mohamed

Dept of PMR Swami Vivekanand National Institute of Rehabilitation, Training and Research, Cuttack, Odisha

Background: Pressure Sore is a common and troublesome complication arising in complete SCI patients. They occur as early as 1 week from injury, due to lack of knowledge about the 'need' for timed weight relieving practices for prevention of pressure sore.

But with an incidence rate over 50%, the current practice clearly is not enough. Further aggressive prevention methods needs to be explored to prevent pressure sores.

We intend to develop a unique device based on mechanical feedback system, which is simple and cheap, for prevention of bed sore in complete paraplegics. The device is in designing stages but has been deemed theoretically feasible and effective for prevention of pressure sores.

Method: The device would consist of a pouch containing mild skin irritant gel. The pouch should be placed in area with maximum risk for ulcer, like Sacral area, and connected with tubes to an area cephalad where sensation is intact. When patient is supine without changes in position, the pressure build up in sacral area will cause the fluid within pouch to move cephalad in tube. If there is no voluntary effort from patient to change position, gel will eventually spill in a controlled manner through tube to intact skin which would give the feedback of building pressure in sacral area to patient. As patient moves, pressure would go down and fluid will move back to pouch.

Conclusion: The device can help patient prevent pressure sore by:

-Learning the duration he can stay in particular position without risk.

-Mechanical feedback in case patient forgets to move.

-Making Voluntary movement a learned subconscious movement with time.

P10 A Sinister Cause for Foot Pain in an Adolescent Boy

Prasanthan K

Dept of PM&R, Govt Medical College, Kozhikode.

Abstract: A 11 yr old boy presented with a swelling on the lateral aspect of the (R) foot of 2 months duration. He gave a history of minor trauma 3 months back. Clinical examination showed a firm swelling of 3×3 cm with no local tenderness. USG showed a hypoechoic swelling with a cortical break in the 5th metatarsal. An X-Ray taken showed a permeating lesion of the same bone. MRI showed features of a sclerotic lesion with a possibility of a pathological fracture. Biopsy confirmed diagnosis of Ewing's sarcoma.

Keywords: Lateral foot pain with swelling, minor trauma, Ewing's sarcoma

P11 Ultra sound guided aspiration of Gastrocnemius Ganglion

Prasanthan K

Dept of PM&R ,Govt MCC Kozhikode

Abstract: A 42yr old man presented at our dept with a right posterior knee swelling of 1 month duration.

Clinically, the swelling was suggestive of a cystic lesion arising from the popliteal aspect of the right knee.

Ultrasound of the knee showed a cystic lesion which was not consistent with a Morrant Baker's cyst. An MRI of the knee was done , which showed a medial gastrocnemius ganglion . The patient was treated with aspiration of the ganglion under Ultrasound guidance and intralesional steroid was given. He is completely pain free and asymptomatic now with full ROM restored.This case is being discussed because non-surgical management of ganglion is not a frequently practised one with good outcome.

Keywords: gastrocnemius ganglion, posterior knee swelling, ultrasound-guided aspiration

P12 Effectiveness of Total Contact Casting Vs Patellar Tendon Bearing Casting In Leprotic Planter Foot Ulcer: A Comparative Study

Batabyal S

Dept of PMR , IPGMER and SSKM Hospital, Kolkata

Total Contact Casting (TCC) has been identified as a 'Gold Standard' treatment approach by offloading in neuropathic foot ulceration in leprosy. Patellar Tendon Bearing Casting(PTB) is an another good approach in this condition.Here we tried to compare their efficacy in leprotic foot ulcer.

Aims & Objectives:

1. To observe the outcomes of TCC & PTB casting in Leprotic planter ulcer.
2. To compare the effectiveness of TCC & PTB.

Study Design: Prospective analytical study

Sample Size: n = 20 (12TCC &12PTB)

Study Duration: 5 months.

Study Place: Dept. of PMR; IPGMER & SSKMH

Inclusion Critera:

1. Unilateral solitary Grade 1 &2 planter ulcerations (Wagner classification).
2. Age: 20-60 years.
3. Ambulatory patients.

Exclusion Criteria:

1. Grade-3/4/5 planter ulcerations
2. Excessive leg or foot swelling.
3. Unwilling patients.

Methods & Materials: At first, ulcers were debrided off all necrotic-tissue to create a smooth surface. Then after proper positioning, over a small amount of cotton padding, the cast was applied covering the toes up to 2 cm distal to fibular head with a rocker sole for offloading in case of TCC & with a iron walker in case of PTB.

Assessment: Assessment was done in consecutive 3 visits at the end of 1st/3rd/6th week comparing the size, depth, downgrading of Wagner classification & time taken for complete ulcer healing.

Conclusion: Overall healing by both methods was very good but heel ulcers heal better & sooner in PTB method than TCC.

Keywords: Total Contact Casting, Neuropathic foot ulcer, Wagner classification,

P13 A Rare Case Report Of Bilateral Thenar Muscle Wasting

Arindam Ghosh

Dept of PMR , IPGMER and SSKM Hospital, Kolkata

An young male patient in his early 20s presented to us in PMR OPD with complaint of weakness of his right hand following trauma to the wrist 1 month back. On examination, it was observed there was wasting and loss of muscle power only in the thenar muscles. On further examination the same findings were also seen in the other hand. There were no features of median nerve entrapment at the wrist both clinically and electrophysiologically nor any features of myotonia. The patient was further investigated and imaging study (USG wrist and Doppler study and radiograph of both hands and wrists) were done, which showed no bony abnormalities, nor any entrapment of the median nerve at wrist but there was absent radial artery in right hand and feeble flow in the left radial artery. This was followed by cardiovascular imaging and investigations to rule out any associated cardiac involvement. The patient also didn't show any abnormality in routine laboratory examination.

So after ruling out the common causes of bilateral thenar muscle wasting and ruling out other syndrome complexes like Holt Oram, Fanconi's,TAR syndrome we finally diagnosed this case as CAVANAGH'S SYNDROME with a very rare association of absent radial artery.

P14 Bilateral Lower Limb Amputee With Dhat Syndrome - A Rare Case Report

Mohit K Srivastava

Dept of PMR, King George's Medical University, Lucknow

Background: Dhat syndrome is a clinical entity mostly seen in south East Asia. The International Classification of diseases ICD-10 classifies Dhat syndrome as both a neurotic disorder and a culture specific disorder. The patient suffering with this syndrome commonly presents with features of depression, anxiety, multiple non-specific somatic symptoms, impairment of concentration which are attributable to semen loss.

Case Summary: The case which we present here is a 32yrs old patient with (right) transtibial and (left) transfemoral amputation. Patient presented with following complaints within 10 days of post-amputation surgery.He complained of anxiety, low mood, anhedonia, decreased sleep, reduced appetite and whitish discharge while passing urine. Non-specific gastrointestinal complaints were also reported by him. Suicidal tendencies were also observed in the patient. All the blood investigations and USG-WHOLE Abdomen was normal. The patient was prescribed sertraline 50mg half H.S. for three days followed by 50mg one H.S., zolpidem (10mg H.S.) and Syrup cyproheptadine (2 TSF H.S.) for a period of two weeks. Psychoeducation was also given on a daily basis during this duration. Significant improvement was seen in the above complaintsafter 1 week of medication.

Conclusion: Patients with lower limb amputation mostly suffer with depression but development of features of Dhat syndrome along with this clearly indicates the emotional and psychological impact of amputation on such patients which often goes unnoticed. Depression with Dhat syndrome is first time reported in a bilateral lower limb amputee. So,every amputee should be given psychological rehabilitation after such an adverse episode of their life.

P15 Study Of Bone Mineral Density In Stroke Survivors

Gorle Sujatha

Introduction: Osteoporosis after stroke differs from age-related osteoporosis,.Stroke is frequently followed by extensive bone loss, precipitating the increased fracture risk in survivors It is more evident on the paretic side and that too in the upper extremities. The present study is to assess the Bone Mineral Density in hip, spine and wrist in ambulatory stroke survivors and to assess BMD difference between paretic and non-paretic side in ambulatory stroke survivors

Methods: The study design is Cross-sectional observational studyand 40 individuals attending Department of Physical Medicine and Rehabilitation, VMMC & Safdarjung hospital, New Delhi with the diagnosis of stroke, fulfilling inclusion criteriawere enrolled .Tools of measurement used were 1) Biochemical markers(S.Ca, Phosphorous, ALP) 2) X –ray of spine, bilateral hip and wrist .3) BMD using Dual Energy X-ray Absorptiometry (DEXA) by OSTEOSCORE-3 (Digital 2D Densitometer) at spine, forearm and hip.

Results: Our study involved total 40 subjects having 33 (82.5%) males and 7 (17.5%) females. Mean age of study group was found to be 53.9 ± 10.9 years. The T score for forearm was found to be significantly higher in non-paretic side (Mean = -4.11 ± 2.46) compared

to paretic side (Mean = -4.85 ± 2.01) (P=0.04). The T score for hip on non-paretic side was found to be higher (Mean = -1.96 ± 1.74) compared to that of paretic side (Mean = -2.14 ± 1.57) (p:0.4). 15 (37.5%) were found to be osteoporotic onDEXA scanning of spine.

Conclusion: Most of the patients who presented after one year of stroke had low T-score at hip and forearm on paretic side in comparison to non-paretic side.

P16 Injuries Presenting to the State Institute of Sports Medicine, Kozhikode- a 4 Year Data Analysis

Shajahan C

Department of PMR, Govt Medical College, Kozhikode.

Increased community participation in recreational athletic events and lack of a Sports Medicine facility in North Kerala, have prompted the establishment of the State Institute of Sports Medicine in Kozhikode Government Medical College under the Department of Physical Medicine and Rehabilitation. Here we have analysed the conditions seen in the OP of the State Institute of Sports Medicine, Kozhikode, for a period of 4 years, on the basis of the site and type of injury and the sports played.

Key words: sports injuries, sports played.

P17 Post-Partum Paraplegia Following Spontaneous Spinal Epidural Hematoma With Hellp Syndrome

Gourav Sannyasi

Department of Physical Medicine and Rehabilitation, CMC Vellore

Introduction: Spontaneous spinal epidural hematoma rarely occurs in pregnancy with only a few reported cases. HELLP (hemolysis, elevated liver enzymes and low platelet) syndrome occurs in only 0.5-0.9% of all pregnancies and in 10-20% of severe preeclampsia. We present a case of HELLP syndrome associated with non traumatic spinal epidural hematoma leading to paraplegia.

Case Report: A 27 year old female presented with weakness and loss of sensation of both lower limbs since the 4th day of normal vaginal delivery of her second child which was six months back. There was history of multiple episodes of GTCS and loss of consciousness six hours after the delivery. She was intubated and regained consciousness only on 4th post-partum day when she noticed weakness and loss of sensation below waist. She hadn't gone for any antenatal check-ups. Blood investigation revealed raised creatinine, low platelet count (< 50,000/ml), high TLC, elevated liver enzymes. She was diagnosed to have sepsis, DIC, AKI for which she underwent dialysis. MRI Spine showed epidural haematoma involving T8-T12 region with compressive myelopathy and multiple tiny haemorrhage in frontal lobe of the brain. She underwent laminectomy and evacuation of hematoma after 18 days. There was no neurological improvement post operation. She was admitted in PMR, CMC Vellore as T7 complete paraplegia for rehabilitation. After 2 months, she was independent in activities of daily living, wheel chair ambulation and transfers and intermittent self catheterization.

Conclusion: Spontaneous spinal epidural haematoma (SSEH) is a rare cause of paraplegia and HELLP syndrome might be the cause of SSEH. Late intervention carries a poor prognosis. Regular antenatal check-ups are important for its early detection and intervention.

Keywords: SSEH (spontaneous spinal epidural haematoma), HELLP syndrome

P18 Marjolin's Ulcer Complicating A Pressure Ulcer

Shajahan C

Dept of PM&R, Govt. Medical College, Kozhikode.

Pressure ulcer is defined as skin or soft tissue loss usually over a bony prominence caused by pressure or pressure in combination with shear. Marjolin's ulcer is a malignancy that arises in chronic venous ulcers , scars ,burns, longstanding wounds, pressure ulcers and sinuses. Malignancy in pressure ulcer is a rare condition,Incidence is about 1-2 %. Carcinoma arising in pressure ulcers are highly aggressive and usually fatal. Poorly differentiated squamous cell carcinoma has poor prognosis. Well differentiated variety has better prognosis.

We report a case of squamous cell carcinoma arising in a pressure ulcer of a 55 year old paraplegic patient who developed a non healing sacral pressure ulcer of five months duration.As there was a high index of suspicion a biopsy was done and it showed well differentiated squamous cell carcinoma.

A high index of suspicion is necessary for longstanding pressure ulcers to enable early diagnosis and treatment of carcinoma.

Key words: Marjolin's ulcer ,Pressure ulcer, Paraplegia.

P19 Clinical Algorithm For Prediction of Ambulatory Potential In Spinal Cord Injury Patients and Evaluation of Physical Therapy Efectivity

Ravi Prakash Khatri

Dept of PM&R, SMS Medical College, Jaipur

In the present work we will review the prognostic factors for walking recovery, with particular attention on the clinical and physiological investigations, in particular tibial nerve somatosensory evoked potentials which could be useful to predict the prognosis.

P20 The Effect of Oxybutynin on Neurogenic Detrusor Overactivity in Spinal Cord Injury Patient, A Hospital Based Interventional Study

Vineet Bharti

Dept. of PM&R, SMS Medical College, Jaipur

Neurogenic bladder dysfunction is one of the prominent impairments following SCI, with a high risk for long term urological complications. It affects over 90% of patients with spinal cord injury (SCI).Patients can also have high bladder pressures from detrusor overactivity (DO) or low bladder compliance. DO combined with detrusor sphincter dyssynergia (DSD) can lead to upper tract deterioration. In this study we try to study the effect of oxybutynin on neurogenic detrusor overactivity in spinal cord injury patient. We found that all patients with NGB who are in retention, other than those with atonic bladder, should be maintained on antimuscarinic therapy.

Keywords: Neurogenic detrusor, Spinal cord injury, overactive bladder, oxybutynin.

P21 Comparison of Resistance And Sham Training of Expiratory Muscles on Pulmonary Functions In Patients With Spinal Cord Injury

Manik Jamatia

Dept. of PM&R, SMS Medical College, Jaipur

Respiratory dysfunction remains a significant cause of illness and death for people with tetraplegia. Injury to the spinal cord impairs neuronal control of the respiratory muscles, leading to high incidence of respiratory complications. In this study we try to find out the comparison of resistance and sham training of expiratory muscles on pulmonary functions in patients with spinal cord injury. We found that Resistive expiratory training at any level using a simple handheld breathing training device have the potential to improve most of the measures of ventilatory function in people with tetraplegia.

Keywords: Resistance training, Expiratory Muscles, Pulmonary Functions Test, Spinal Cord Injury

P22 Rehabilitative Outcome Of Dual Disability With Unusual Contralateral Presentation (Righttranstibial Amputation And Left-Hemiplegia) In An Elderly Person With Uncontrolled Type 2 Diebetes – A Case Report

Padmapriya

Dept. of PM&R, Government Institute of Rehabilitation Medicine, K K Nagar, Madras Medical College, Chennai

Back ground: Co-existence of stroke and lower limb amputation occurs most commonly in older adults with uncontrolled diabetes and peripheral neuropathy. Since amputation of non-traumatic etiology and CVA share common risk factors, always there is a possibility of their comorbid presentation posing a challenge to effective rehabilitation. Objective: To achieve an effective, scientifically measurable, patient centered comprehensive rehabilitation in a 65 year old male with dual disability of almost simultaneous occurrence (CVA with left sided hemiplegia in immediate post-operative period after right transtibial amputation), addressing challenges and over-coming limitations with proper assessment and analysis. Methodology: With detailed history taking and routine physiatric assessment, outcome predictive factors were analyzed comparing with available data by previous studies. Amputee mobility predictor was used to determine K level; Breg balance scale, Locomotor capability index, Six/two minute walk test, Barthel index and FIMS for balance, mobility and functional assessment; SF36 for subjective assessment. Discussion & Results: Post-stroke rehabilitation measures and post-amputation care were started once general condition was stabilized and continued in sub-acute period as well. Diabetes, obesity, gluteal abscess and depression were intervened with appropriate measures. With improved muscle power on left side(MRC 4), patient was trained with right PTB prosthesis with thigh corset and external knee joint with drop lock (aiming at increased stability). With periodic assessment and review, targeted K1 level of ambulation with ambulatory aids and functional

independence (except using stairs) were achieved. **Conclusion:** Despite the challenge of dual disability and their unusual presentation, effective rehabilitative outcome can be achieved with patient centered targeted comprehensive approach.

Key words: Dual disability, Transtibial amputation, K level, Cerebro Vascular Accident (CVA), Post stroke depression.

P23 Challenges Faced in the Rehabilitation of a Case of Fibrodysplasia Ossificans Progressiva- A Rare disease

Madhusree Sengupta

Dept of PM&R, National Institute for Locomotor Disabilities (Divyangjan), Kolkata.

Fibrodysplasia ossificans progressiva (FOP) is a rare, genetic disease with a worldwide prevalence of 1:2000000 approximately. The disease typically manifests in the first decade, however FOP in utero and early adulthood have been reported. The characteristic classical features are progressive heterotopic endochondral ossification and short great toe. It involves the axial musculature, ligament, fascia, tendons, aponeurosis,joint capsules and spreads typically in an anatomical distribution. The diagnosis is made clinically & radiologically. There is no effective medical treatment.Surgical treatment is usually contraindicated. Patient'smedian age of survival is approximately 41 years.This report describes an 8-year-old female with FOP, who presented with progressive forward stooping, difficulty in mobility and activities of daily living, restricted range of motion of multiple joints including her jaw. A rehabilitative plan was made with an aim to improve her quality of life. There are only 500 cases of FOP reported worldwide and very few published work on rehabilitation. As disability is cumulative, crippling & usually catastrophic, the challenges faced in rehabilitation are many.

Key words: FibrodysplasiaOssificansProgressiva, Rare disease, Heterotopic Endochondral ossification

P24 Functional Disability Among Hemophilia

Yeshveer Singh

Senior Resident

Department of PMR, Christian medical college & hospital Ludhiana.

Objective: Hemophilia is a rare disorder in which blood does not clot normally because it lacks sufficient blood clotting factors. Patients with severe hemophilia (< 1% of normal factor VIII levels) present with spontaneous bleeding into skin, muscle and joints. The major morbidity of recurrent bleeding in severe hemophilia is musculoskeletal. Bleeding is typically into large joints especially knee, elbow, ankle and hips. Muscle hematomas are also characteristic most commonly in the calf and Psoas muscle. In this study We assessed Functional disability among forty three hemophilic patients in Department of PMR, CMC Ludhiana to know the Functional disability burden among hemophilia patients.

Methods: We assessed to patients with the Functional Independent score in hemophilia (FISH). The FISH incorporates items that are perceived as important by persons with hemophilia. In this scale we assessed patients for self care, transfer and locomotion activity.

Result: Interestingly we found that 47.34% in self care activity, 64% in transfer activity and 70.6% in locomotion activity found functional disability.

Conclusion: We come to conclusion that these patients are potential candidate who required active Rehabilitation services to improve functional ability. Rest patient are also required rehabilitation services to prevent downgrade score in FISH Score.

Keywords: Hemophilia, Functional independence score in hemophilia(FISH).

Frequency : Quarterly **ISSN0973-2209**

Full text of the Journal and Guidelines to the contributors are available on website.

Subscription :

Annual subscription is ₹ 2000/- (India) and US $ 200 (other countries). Kindly send your request for subscription to the editor along with DD/ Cheque at par in favour of "Indian Journal of PMR" payable at Kolkata. Overseas per hardcopy 50$. Reprint per hard copy ₹ 200/-.

The journal is despatched in India by surface mail and abroad by sea mail.

Correspondence :

Editorial Office :

Prof (Dr) Rathindranath Haldar
Department of Physical Medicine & Rehabilitation,
Institute of Post Graduate Medical Education & Research & SSKM Hospital,
244, AJC Bose Road, Kolkata - 700020.
E-mail: indianjournalofpmr@gmail.com Phone no : 00 91 9830152173