

Uncommon Presentation of Spastic Paraplegia – A Case Report

Dr. Arun Ram

Introduction : A 20 years old male with spastic paraplegia who was diagnosed to have transverse myelitis was admitted to our ward for rehabilitation. Since recent clinical history revealed an episode of seizure 8 months ago, an investigational outlay was planned.

Evaluation : Apart from clinical examination and basic clinical investigations further evaluation was needed, which included MRI of brain with spine screening, CT thorax, USG abdomen and specific serum assay. The differential diagnosis which were entertained included multiple sclerosis, HIV infection, paraneoplastic syndrome, tuberculosis and neurosarcoidosis.

Basic investigations were done to narrow down the diagnosis. The patient developed a skin lesion, but the tissue biopsy was deferred. Taking available clinical data and investigations, including serum A.C.E. (Anti-Choline Esterase) levels, MRI with gadolinium contrast, USG abdomen, and CT thorax a presumptive diagnosis of neurosarcoidosis was made-although a definitive tissue diagnosis is pending.

Summary : This was a diagnosed case scenario of transverse myelitis, but a seizure episode paved way for a presumptive diagnosis of neurosarcoidosis

Key words : Neuro-sarcoidosis, A.C.E.

An Unusual Case of Unilateral Upper Limb Weakness – A Diagnostic Dilemma

Dr. Prajna Ranjani

A 21 years old male referred as a case of wrist and finger drop, from Neurology department to Physical Medicine and Rehabilitation for the purpose of “wrist drop splint”, presented with asymmetric weakness and fasciculations in right upper limb for past 1 year without

any sensory disturbances or other possible aetiological factors. By history and clinical examination, compressive myelopathy, motor neuron disease, monomelic myotrophy, cervical spondylitis, myeloradiculopathy, traumatic myelopathy, syringomyelia were the possible differential diagnosis. Cervical spine radiography and routine blood parameters were normal. Cervical spondylitis, traumatic causes were ruled out. Magnetic resonance imaging (MRI) was showing cord atrophy with changes in signal intensities. Syringomyelia and compressive myelopathy were ruled out. Electrophysiological studies were suggestive of neurogenic involvement of C7, C8, and T1 segment bilaterally with evidence of reinnervation and no evidence of active denervation. With high suspicion, MRI with neck in flexion, was done and asymmetric unilateral upper limb amyotrophy, was diagnosed and confirmed, findings of which would be discussed in the presentation.

Key words : Asymmetric unilateral upper limb amyotrophy, Hirayama disease.

An Attempt to Discuss the Possibilities of Neuroplasticity in Rehabilitation with a Single Case Study

Dr. Sreejith R

Material and Methods :

Designs : Single case report.

Settings : Dept. of Physical Medicine & Rehabilitation, Kozhikode Medical College

Study Tool : A 15 years old girl with Sturge-Weber Syndrome admitted in the ward.

Period of study : 1st May 2011 to 15th May 2011

Procedure: A 15 year old girl with Sturge Weber syndrome and right hemiparesis was evaluated and her CT scan brain showed extensive calcification and marked atrophy of left hemisphere but with minimal and in some areas no functional impairments as expected in an atrophic

left cerebral hemisphere which strongly supports the neuroplastic changes in opposite hemisphere.

Discussion : To discuss how these Neuroplastic changes can be utilised in rehabilitation medicine.

Key words : Neuroplasticity, Sturge Weber syndrome.

Atypical Presentation of Pulmonary Tuberculosis in a Chronically Disabled Individual – A Case Report

Dr. Sobee Krishna

A 22 years old female, with Arnold Chiari malformation type 1, who underwent foraminal decompression 4 months back, with residual quadriplegia and old MRI showing extensive syrinx, presented with generalised weakness, low grade fever and weight loss. She was admitted with a goal of evaluation of fever and to rule out any new spinal pathology like syrinx extension or myelitis. She was evaluated to determine any focus of infection and any neurological deterioration. On clinical examination she was febrile, depressed, chest auscultation showed scattered crepitations and ronchi more on right hemithorax, and increased vocal resonance on right. Neurological examination didn't reveal any new neurological deficits except for a reduced recruitment and general apathy. Her urinalysis was normal, haematological examination showed anaemia, elevated ESR and neutrophilic leucocytosis. She had hypoalbuminaemia, normal renal function and negative serology for HIV. USG abdomen showed bilateral medical renal disease and no evidence of any intra-abdominal sepsis. Repeat MRI showed similar findings to the previous one. Her chest x-ray showed extensive opacities in the right lung fields. Her sputum examination showed high positivity for AFB in two consecutive samples. A diagnosis of pulmonary tuberculosis was made and patient started on antituberculous therapy. Her fever subsided, weakness improved and she became more active and started participating in rehabilitation program. This paper highlights the importance of considering tuberculosis as a differential in a neurologically disabled individual, who presents with atypical features like functional weakness and low grade infection, and susceptibility for endemic infections like tuberculosis due to a general reduction in immune status.

Key words : Syringomyelia, tuberculosis.

Rehabilitation of a Neglected Case of Postpolio Residual Paralysis

Dr. Ammu Shanmugham

Objectives : To present the improvement in the mode of ambulation of a postpolio residual paralysis lady from bottom shuffling to bipedal gait.

Study Design : Single case report.

Method : A case of Behcet's syndrome referred from Department of Dermatology with complaints of inability to walk. Her mode of ambulation was bottom shuffling. Impairment and disability were assessed. There is flaccid paralysis of both lower limbs with differential involvement, FFD of both hips, left hip dislocated. Abduction deformity of left hip and 70 degrees FFD of right knee. Serial casting was applied to the right knee which was followed by stretching with wedging, and posterior PVC splint. Along with this we gave upper limb strengthening and parallel bar standing. FFD of knee was corrected.

Results : Patient is able to stand with support using AFO on left side and posterior PVC splint on right side. She has bipedal gait with the aid of walker.

Conclusion : Up gradation of mode of ambulation in a quadriped PPRP is possible with serial casting and orthotic measures.

Key words : PPRP, serial casting.

Comparative Study of Management of Osteoarthritis Knee Joint by Different Rehabilitative Measures

Dr. Nabaneeta Mahata, Dr. Jayanta Saha

Study Design : Prospective study.

Objectives : To determine the outcome of osteoarthritis knee joint patients after management by different rehabilitative methods which were classified in three groups as the following :

Deep heating in the form of short wave diathermy and rehabilitative exercises.

Analgics and exercises : Exercises and disease modifying osteo-arthritic drugs in the form of fixed dose combination of glucosamine and diacerin.

Knee orthoses were advised according to necessity in all groups.

Materials and Methods : Forty five patients of osteoarthritis knee joint from S.N.P. Hospital, outpatient department of Physical Medicine and Rehabilitation were selected by symptoms, signs and radiological findings.

All patients who were selected were in early or moderate stage i.e., grade 2 or grade 3 stage of osteoarthritis knee joint according to Kellgren Lawrence classification.

Patients with varus deformity, effusions and other connective tissue disorders were excluded from the study.

Patients were followed up every 15 days for 3 months and assessment was done on the basis of improvement in:

Function by WOMAC scale,

Pain by VAS scale,

Other accessory features like decrease in anxiety, depression.

Results and Analysis : Improvement in all the 3 parameters i.e., functional status, pain and stiffness, freedom from anxiety and depression were found in all the 3 groups of patients but the maximum improvement was found with deep heat therapy in the form of SWD with exercises followed by DMOADS and analgesics.

Conclusion : Deep heating modalities like SWD along with rehabilitative exercises were conclusively proved as effective means of treatment in OA knee joint.

Key words : Short wave diathermy, radiological oa classification, rehabilitative exercises.

The Association of BMI and Joint Pain – An Institutional Study

Dr. K. Anupama

Background : Joint pain in obese individuals is a frequently encountered problem causing significant morbidity and difficulty in ADL. Obesity, being an inflammatory condition, it may predispose to early development of degenerative joint disease. Hence we entered into a study assessing the clinical pattern of joint pain in obese individuals and its significance.

Study Design : Descriptive study.

Objectives : To study the pattern of joint pain in obese

individuals and the association between BMI and joint pain.

Setting : Lifestyle disease management clinic, Dept. of PM&R, Medical College Calicut.

Materials and Methods : Subjects were classified as those reporting joint pain and those with no joint pain. They were then categorised according to their BMI. BMI categories were then compared with pain status.

Results and Conclusions : Joint pain was seen to increase with increase in BMI. Knee joint pain was the most frequently encountered pain amongst obese. Pain status increased with increase in BMI. As BMI is a modifiable factor; further longitudinal studies are warranted to assess improvement in joint pain with decrease in BMI.

Key words : Obesity, joint pain, BMI.

An Unusual Case of Amputation

Dr. Pradeep Kalathil

A 62 years old gentleman, an inmate of Leprosy Hospital for 12 years, came to us with feasibility of prosthetic fitting of (right) BK amputation. He is a deaf mute and has had an auto amputation of (left) foot 11 years back. He is a destitute and is being looked after by a distant relative.

He is having heterochromia of both iris and facial irregularities.

The case records at Leprosy Hospital revealed that he was not having Hansen's disease, but sensory neuropathy. He had auto amputation (left) foot after sensory neuropathy of both feet and hands. NCS revealed sensory motor neuropathy. He is also suffering from peripheral occlusive arterial disease. So, we looked up references and found out that he is a case of Waardenburg syndrome.

The Rehab challenges we are facing are:

1. Auditory and communication problem
2. Visual problem
3. Locomotor
4. Social isolation
5. ADL dependence
6. Sensory motor neuropathy
7. POAD.

An Interesting Case of Ankle Arthritis Presented at PMR OPD

Dr. Debayan Ghorai,

A 60 years old female patient presented with ankle arthritis without significant constitutional symptoms. She was investigated for ankle OA because she had OA knee with varus deformity and treated with NSAID, exercise, DMOAD. After that she became bed ridden due to severe ankle pain and swelling. Rheumatoid arthritis and septic arthritis were excluded. She was undergone for venous Doppler study because she was suffering from varicose vein with suspected venous oedema. Eventually a discharging sinus developed on her ankle. When we examined the patient we noticed erythema nodosum on her shin. She did not have any sore throat or h/o any drug intake causing erythema nodosum. X-ray was showing little bit of periosteal elevation with destruction of ankle architecture. A CT scan was advised which showed suggestion of chronic osteomyelitis. Later on a biopsy was done that confirmed tuberculous pathology. She was much better with NWB followed by PWB, course of ATD and ankle rehabilitation regimen.

An Observational Study on Knee Instability

*Dr. Ancy Joseph, Dr. Sreedevi Menon P,
Dr. V. K. Sreekala*

This is an observational study conducted in a population of patients attending department of PMR of Thiruvananthapuram Medical College on outpatient basis, with knee complaints who were screened for knee instability. Study population of sample size, n=25 consisted of patients with positive knee instability tests during a three months period from August 2011 to October 2011.

The study population is evaluated using the parameters of age, sex, diagnosis, most common complaint, disability and interventions done. The patients included in the study are under follow-up now.

Key words : Observational study, screening, instability.

Effect of Partial Weight Supported Treadmill Gait Training on Balance in Patients with Parkinson's Disease

*Dr. Anupam Gupta, Dr. Ganesan Mohan,
Dr. Pramod Kumar Pal, Dr. A.B. Taly,
Dr. T.N. Sathyaprabha*

Background : Impaired balance and gait is common in Parkinson's disease (PD). Partial weight supported treadmill gait training (PWSTT) is widely used in rehabilitation of gait disorders. However, its effect on balance in PD has not been established.

Aim : To evaluate the effect of PWSTT on balance in PD.

Materials and Methods : Sixty patients with idiopathic PD from Hoehn and Yahr stage 2 to 3, on stable doses of dopaminomimetic drugs were randomly assigned into 3 groups. Group I (controls) did not receive any specific intervention, group II underwent conventional gait training (CGT) and group III underwent PWSTT with 20% unweighing. Training was given for 30 minutes per day, 4 days per week, for 4 weeks (16 sessions). Both the groups were evaluated in best 'ON' state, using unified Parkinson disease rating scale (UPDRS) and dynamic posturography (Biodex, USA) which measured overall balance index (OBI), anterior-posterior index (API), medio-lateral index (MLI), and the limits of stability (LOS) in 8 directions. Evaluations were done before and after 4 weeks of training.

Results : After 4 weeks, significant group effect was observed between the groups in OBI (F=6.57; p=0.039), API (F=5.17; p=0.009) and MLI (F=8.81; p<0.001), LOS total score (F=16.76; p<0.001) and all 8 direction scores. Occasion effect was significant between the groups except backward direction. Bonferroni adjusted comparison showed improvement in all sub-components of LOS only in PWSTT group after 4 weeks. No significant improvement was observed in CGT group.

Conclusions : PWSTT improved dynamic balance and limits of stability in all direction in PD. Four weeks training was optimum.

Key words : Parkinson's disease, balance, partial weight support treadmill training.

The 'Internally Obese' Among Obese

Dr. Anit Antony,

Background : Modern science through improved sanitation, vaccination, and antibiotics has eliminated the threat of death from most infectious diseases. The lifestyle disorders causing cardiovascular disease (CVD) and cancers are now the primary causes of death. In India the situation is quite alarming. The WHO has warned that India is going to have the most number of persons with lifestyle disorders in the near future. Already considered the diabetes capital of the world, India now appears headed towards gaining another dubious distinction of becoming the obesity capital as well. Among obese, highest risk of CVD and cancers are for those with metabolic syndrome and the assessment of metabolic syndrome is more important than assessing obesity alone.

Study Design : Descriptive study.

Objectives : To study the prevalence of metabolic syndrome among obese individuals.

Setting : Patients attending lifestyle disease management clinic.

Methods : Obesity is defined by BMI (body mass index) >25. Among the obese, metabolic syndrome is diagnosed by the following criteria fasting venous plasma glucose ≥ 100 or on treatment for type 2 diabetes mellitus systolic BP >130 or diastolic BP >85 or on treatment for hypertension waist circumference >80cm for females and >90 cm for males in fasting lipid profile (FLP), triglycerides >150mg% in FLP, HDL <50mg% for females and <40 mg% for males if three or more criteria are positive, the person has metabolic syndrome

Key words : Obesity, metabolic syndrome.

Impulsive Decision – A Life Long Regret

Dr Harleen Uppal

Introduction : Following is 'the strange case of a 33 years old married BSF Jawaan, resident of Assam, who was destined to suffer a lifetime travail after a self inflicted gunshot injury. This was a consequence of an attempt to suicide in order to obtain relief from a chronic and extremely unbearable abdominal pain, which seemed to be of psychosomatic origin. This impulsive decision

left him with complete paraplegia! His rehabilitation was a monumental task as his psychological rehabilitation demanded special consideration apart from the usual rehabilitation goals.

Case presentation : Apart from complete paraplegia he presented with a diverse set of obstacles to his rehabilitation which incorporated medical problems like deep vein thrombosis, urethral stricture, anal fissures, spasticity, pressure ulcers, heterotropic ossification.

Discussion : It is difficult to find a solution for this group of patients, but as Kuhn *et al* pointed out, it is of the utmost importance that they receive specialist psychiatric care. According to Stanford *et al*, frequency of suicide following the index spinal injury due to an attempted suicide appears to be high.

Conclusion : In accordance with the available literature, it can be said that rehabilitation suffers a great deal due to the psychiatric condition of the patient as was the case in our patient and takes prime privilege especially in avoidance of self-destructive behavior.

Key words : Paraplegia, depression.

Comparative Evaluation of Quality of Life of Parents of Children with Disabilities with the Parents of Children without Disability – A Preliminary Study

Dr. Shweta Jain, Dr. Ritu Majumdar, Dr. Minati Acharjya, Dr. V. K. Gupta

Parents of the child with disabilities face lots of challenges in upbringing of their child. This increasing demand has an implication on the health of the parents. Therefore a study is being conducted with the aims to study the quality of life of parents of children with disability and to compare the quality of life of these parents with the general population.

Materials and Methods : Parents of all the children above three years of age with any form of disability attending PMR OPD in Kalawati Saran Children Hospital, Lady Harding Medical college & Associated Hospitals, New Delhi were included in the study. For control group, general population having children without disability and above three years of age were included. After taking informed consent to participate in the study, a

prestructured proforma including demographics, care given burden inventory, WHO-QOL BREF and hospital anxiety and depression scale was filled by interviewing the parents.

Results : The results will be discussed later.

Socialisation in PMR

*Dr. Lakshmi Nair, Dr. Sreedevi Menon P,
Dr. V.K. Sreekala,*

In this poster we attempt to bring out the rehabilitation in the social aspect of our patients, who after a major catastrophic event in their lives have been through various stages of denial, anger, depression and withdrawal. Showcased is the kaleidoscope of the brighter, joyous moments that the patients had during their stay in our department. Celebrations uniting the doctors, students, nurses, staff, patients and their families have brought out the hidden artistic talents in many. One such event organised was the Christmas programme of 2010, with caroling by the doctors and patients including three angelic girls. Our MSW students posted in the department put up the Christmas tree and decorated the seminar hall with ornamental decorations. Our own Santa dancing to the tunes of Jingle Bells, distributed sweets. There was an exchange of gifts amongst the patients followed by games and a feast. Events as these have brought out the optimism, cheer and determination in our differently abled

patients to live as enabled individuals.

Key words : Socialization, PMR.

Sexual Rehabilitation in Spinal Cord Injured, Disc Prolapse & Cardiac Patients

Dr. Vinod Prasad

Sexuality is the expression of a person's femaleness or maleness through personality, body dress & behaviour. There are four stages of physiological changes in human sexual response excitement state, plateau stage & orgasm and relaxation. Sexual dysfunction in SCI varies in different persons according to injuries. Sexual dysfunction may be at various levels i.e. difficulty in erection, vaginal lubrication, ejaculation. Various modes of treatment have been approved – mechanical, pharmacological, electrical etc.

Sexuality is also an important issues in Cardiac patients & disc prolapsed patients. Through there is no fixed rule, yet certain precautions e.g. rest before intercourse, avoidance of meal & alcohol before & certain preferred positions help achieve the purpose satisfactory.

It has also been noticed that while SCI patients (including wives) were least interested in their Sexual Rehabilitation Programme. But cardiac patients were very much interested. Cardiac patients specially males were much eager but their wives were very-very apprehensive. And they preferred other sexual modality than actual sex.