

epidural methylprednisolone injection and intranasal calcitonin in reduction of back pain due to osteoporosis in postmenopausal patients

**Setting and Design:** A Randomised Controlled Trial in a tertiary hospital.

**Materials and Methods:** Hundred patients with back pain due to postmenopausal osteoporosis who fulfilled the inclusion criteria were selected for the study. The patients were divided into two equal groups (calcitonin group and epidural steroid group) and back pain severity was assessed by VAS on daily basis from the day of initiation of therapy till 21 days.

**Results:** In the epidural group, 5 (10%) and 22 (44%) of patients got pain relief on the first and second day of post therapy periods respectively with median value of 2 days $\pm$ 7.8SD while in calcitonin group 16%(n=12), 12%(n=6) and 18%(n=9) of patients got pain relieved on 12, 13 and 14 days of the initiation of intranasal therapy respectively with median value of 15 days $\pm$ 3.7SD.

**Conclusion:** Epidural methylprednisolone gives better and faster pain relief as early as the first post injection day with a median value of 2 days against 15 days in cases of nasal calcitonin spray. Early onset of pain relief was significant among younger age group, lesser duration of back pain and lower grades of osteoporosis.

**Keywords:** Osteoporosis, back pain, calcitonin, epidural steroid, visual analogue scale(VAS).

## O19

### Cervical spondylosis – a soft target

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**Introduction:** It's really a common practice to victimize CS as a cause of vertigo in this part of India. This presentation is a sincere and humble effort to emphasize the role of clinical judgments diagnostic skills or aptitude in the field of rehabilitation Medicine.

**Methods:** This is a presentation based on the observations in OPD of Department of PMR in IPGMER, Kolkata from July 2009 to October 2012. This is a case series of so called cervical spondylosis presented to Department of PMR for rehabilitation.

**Results:** According to my experience in one of the apical hospital in a big state of India cervical spondylosis is frequently picked up as a cause of vertigo and dizzy spells without performing a Dix Hal pike test. This case series are consisting of cases of vertigo due to amurosis fugax, aortic stenosis, atrial fibrillation etc. which were actually referred to Department of PMR as cervical spondylosis. Even the patient with Pan Coast tumor has been refereed as a case of radiculopathy of cervical spondylosis.

**Discussion:** Caries spine is really common cause of any part of spinal pain. This presentation is consisting of few atypical presentation of tubercular infection of spine leading to spinal pain mimicking CS. Sometimes it becomes very difficult to pick up exact causes of neck pain or radicular pain or vertigo or dizzy spells. Clinical skills and aptitude can only save cervical spondylosis as soft target of the above chief complains.

**Potential implications:** This case series are pointing towards lack of expertise and thorough examination and investigation for the cause of vertigo and neck pain in this part of the world.

## O20

### Treatment of congenital clubfoot—a challenge for rehabilitation

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**Objective of Study:** About 1 in every 1000 children is born with clubfoot worldwide. Children having club foot are often abandoned or face a future in poverty. By correcting their feet, they get the opportunity to live a normal life. Surgeons report that Clubfeet treated by surgical methods become weak, stiff and are often painful in adult life. The Ponseti method is a very effective and relatively inexpensive treatment with good long term results. In this study I have tried to evaluate the effectiveness of Ponseti method in physiatrist practice.

**Material & Methods:** 18 patients having 29 club feet (11 B/L & 7 U/L) were treated as Out patients from January 2010 to June 2012 at Physical Medicine & Rehabilitation Department of SVNIRTAR, Cuttack. All feet are evaluated by pirani scoring and follow the ponseti method of treatment.

**Results:** Six unilateral feet had corrected fully as measured by pirani scoring and podogram. Two feet remain resistance for which the child sends for surgical correction. One unilateral case lost the follow-up. Twenty six feet got corrected fully till now without any complications.

**Conclusion:** It shows 92 % good result by using ponseti method of plaster technique. Ponseti method of manipulation and plaster casting is a good standard for correction of club foot deformity in early stage in the rehabilitation practice.

**Keyword:** Club foot, Pirani scoring, ponseti method

## O21

### Interventional Physiatry – Calicut Experience

Sobeekrishna G S

## O22

### Can musculoskeletal USG replace NCS in management of CTS?

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**Introduction:** USG has several advantages like easy availability, short procedure time, non invasive, can localize or understand better pathological lesion causing entrapment, short waiting time etc. Over the years NCS has been used to diagnose and monitor the patients with carpal tunnel syndrome (CTS). But USG can fairly pick up the carpal tunnel as per the literature. This study has been done to find out the diagnostic accuracy of USG.

**Aims & Objectives:**

1. To find out accuracy of USG as diagnostic tool in CTS
2. To compare the efficacy of USG with standard NCS in CTS

**Study design:** Prospective cross sectional analytical study.

**Study population:** Patients attending PM&R OPD, IPGME&R, with suspected CTS

**Study place:** Dept. of PM&R, IPGME&R, Kolkata.

**Duration :** 6 months (from 1<sup>st</sup> March, 2012 to 31<sup>st</sup> August 2012)

**Sample size:** 36

**Inclusion criteria:**

1. Patient with clinical diagnosis of CTS
2. Patient who give consent
3. Age 18 years
4. Both sex

**Exclusion criteria:**

1. Patient with clinical diagnosis of CTS
2. Patient who did not give consent
3. Age 18 years

**Methodology:** After getting institutional ethical committee clearance, all patients who fulfil the above criteria are included in the study & further diagnostic conformation done by the standard diagnostic criteria of NCS. The same group of patient have been also screened for radiological entrapment criteria for CTS.

**Results:** At the end of the study, the data were analysed by statistical tools shows that

1. Musculoskeletal USG has sensitivity of 92.3 with 95% CI of 74.9 to 99.1 and specificity of 70.0 with 95% CI of 34.8 to 93.3
2. Predictive value of +ve test is 88.9% with 95% CI of 70.8 – 97.7 and Predictive value of –ve test is 77.8% with 95% CI of 40 – 97.2.
3. Kappa study shows value of 0.64(0.36 – 0.93)

**Conclusion:**

1. Musculoskeletal USG is a good diagnostic tool for diagnosis of CTS
2. Musculoskeletal USG cannot be considered conclusive investigation for CTS as kappa study value is <0.7
3. Musculoskeletal USG can not replace NCS in diagnosis of CTS.

## O23

### Study to evaluate efficacy of local steroid injection in treatment of carpal tunnel syndrome with respect to subjective and objective clinical findings, electro physiologic and ultrasonographic parameters

Ali Junis

**Objective:** To Evaluate efficacy of local steroid injection in treatment of carpal tunnel syndrome with respect to subjective and objective clinical findings, electro physiologic and ultrasonographic parameters.

**Methods:** A prospective follow up study was conducted on 44 consecutive patients with 73 hands with symptomatic carpal tunnel syndrome (CTS) confirmed by ultrasonographically and electro physiologically. Patients were followed up for 3 months after steroid injection. Outcome measures were evaluated by improvement in VAS scale, Modified Boston Carpal Tunnel Questionnaire symptom and function scores, Electrophysiological and Ultrasonographic parameters.

**Results:** After steroid injection significant improvement of pain was seen as measured with Visual analogue scale ( $p < 0.001$ ). Statistically significant improvement were seen in grip strength, MBCTQ (Modified Boston Carpal Tunnel Questionnaire) symptom score and MBCTQ function score from baseline to 3 month follow-up ( $P < 0.001$ ). Significant improvements were also noted in nerve

conduction studies in sensory distal latency (SDL), mean distal latency (MDL), sensory nerve action potential (SNAP). We observed statistically significant reduction in cross sectional area of median nerve after 3 months follow up by ultrasound.

**Conclusion:** Local steroid injection is a simple, safe and cost effective intervention in treatment of CTS. Local steroid injection provides rapid relief of symptoms and improvement of physical function, neurophysiologic and ultrasonographic parameters.

## O24

### Study of effectiveness of gravity lumbar reduction therapy (GLRT) program in the treatment of symptomatic lumbar prolapse intervertebral disc (PIVD)

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**Aim:** To study the effectiveness of gravity lumbar reduction therapy program in the treatment of symptomatic lumbar prolapse intervertebral disc.

**Study design:** Randomized control trial

**Setting:** Department of PMR, RIMS, Imphal

**Participants:** One hundred clinically diagnosed lumbar PIVD patients from September 2010 to March 2012

**Intervention:** Patients were randomly divided into intervention (A) and control (B) groups. Group A (53 patients) underwent GLRT from 45° with daily increments of 5° till 70°–90° was achieved. Group B (47 patients) received 3 doses of 80 mg methylprednisolone through intra-laminar epidural injection (ESI) at intervals of 1 week at the site of prolapse. Assessments were made at baseline, weekly for 3 weeks, then at 3<sup>rd</sup> and 6<sup>th</sup> months.

**Outcome measures:**

Visual analogue scale (VAS)

Spine specific functional measures–Oswestry Disability Index (ODI)

Straight leg raising test (SLRT)

**Results:** Improvements in VAS and ODI within each group were statistically significant ( $p < 0.05$ ). But the improvement in VAS and ODI between the two groups were not statistically significant ( $p > 0.05$  and 0.13 respectively). There was also strong negative correlation between the reduction in VAS and ODI, and increase in degree of SLRT between both treatments as assessed by Pearson correlation test.

**Conclusion:** GLRT program is effective and safe in the treatment of symptomatic lumbar PIVD.

**Keywords:** Gravity lumbar reduction therapy, intra-laminar epidural injection, Oswestry Disability Index

## O25

### Comparative efficacy of platelet rich plasma injection, corticosteroid injection and ultrasonic therapy in the treatment of periarthritis shoulder

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**Objectives:** To compare the effectiveness of Platelet rich plasma injection, Corticosteroid injection and Ultrasonic therapy in the treatment of Periarthritis shoulder in terms of decrease in pain, improvement in limitation of range of motion and functional improvement.