

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

Duration : 6 months (from 1st March, 2012 to 31st 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)

Rai Bijendra, Naorem Bimol, Singh Y Nandabir, Wangjam K

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 3rd and 6th 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 value < 0.05). But the improvement in VAS and ODI between the two groups were not statistically significant (p value 0.07 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.

Design: Prospective, randomized, case-control study.

Setting: Tertiary care and teaching hospital.

Participants: 180 patients of both the sexes in age group of more than 18 years satisfying the inclusion and exclusion criteria were randomized into three groups.

Intervention: Patients in group A were given one injection of PRP by anterior approach with home exercise therapy. Patients in group B were given one 2 ml injection of Corticosteroid injection by anterior approach with home exercise therapy. Patients in group C were given Ultrasonic Therapy for 7 minutes for 7 sittings with home exercise therapy.

Outcome measures: Patients were assessed in terms of improvement in Range of Motion, VAS, SPADI and DASH scores. The indices were measured at 0 weeks (pre-treatment); 3 weeks, 6 weeks, 12 weeks (follow-up).

Results and outcomes: The statistical analysis of the study shall be done and the results will be presented at the conference.

O26

Effect of suprascapular nerve block with lignocaine under USG guidance in periarticular shoulder on pain & range of motion

Simmi

Objective of the study: The effect of suprascapular nerve block with lignocaine under USG guidance in periarticular shoulder on pain & range of motion.

Method used: Patients with idiopathic periarticular shoulder attending PMR OPD from 1/November/2011 to 31/August/ 2012 were assessed for pain and restriction of range of motion with standard scales (goniometry and visual analog scale). These were measured subsequently on weekly basis for 1month, then, once in 2 weeks for second month. The results were analyzed and discussed.

Results : Three major groups of patients were those with - Rotator cuff disease, Stroke and Idiopathic. Earlier illnesses responded satisfactorily to SSNB, while late patients showed lesser response. Even in the latter group the favorable response was statistically significant.

Conclusion: SSNB under US guidance is a good interventional option in periarticular shoulder.

O27

Hydrodilatation in adhesive capsulitis of shoulder

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Study Design: Prospective study

Objective: To study the efficacy of USG guided hydrodilatation in case of adhesive capsulitis of shoulder.

Materials and Methods: 22 patients with adhesive capsulitis of the shoulder, not responded to 3 months conservative treatment (SPADI<10) were recruited for study after taking informed consent from patient. Patients were divided in to 2 groups. First group were

treated with USG guided hydrodilatation (by Normal saline & Bupivacaine) and followed by physical therapy and second group with physical therapy only. We were prospectively followed-up and clinically assessed at 2, 6 & 12 weeks. SPADI, disability index, pain index and passive ROM were used as outcome measures.

Result: Hydrodilatation produces faster resolution of pain and disability than physical therapy only.

Conclusion: From this study it is concluded that hydrodilatation with physical therapy produce fast recovery in adhesive capsulitis of the shoulder as compared to physical therapy only. From this small study, hydrodilatation is proved as a safe and effective treatment option for refractory case of adhesive capsulitis.

Keywords: Physical therapy, Hydrodilatation.

O28

Non surgical management of rotator cuff tear

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Rotator Cuff tears are amongst the most common pathological condition affecting the shoulder. Supraspinatus tendon is most frequently torn. Rotator cuff tears increase in incidence with age and less frequently they occur due to trauma. Sudden trauma or chronic overuse with repetitive overhead motion with internal or external rotation is probably mechanism of injury. A study was conducted in Sambhunath Pandit hospital and SSKM hospital Kolkata in the department of Physical Medicine and Rehabilitation (PMR) from March 2010 to august 2011. Two sample groups were selected, each having thirty seven subjects. The study was undertaken to evaluate the efficacy of nonsurgical rehabilitative management in rotator cuff tear. Also we have evaluated the effect of therapeutic exercise versus therapeutic exercise and ultrasound therapy. Rehabilitation in rotator cuff tear is aimed at managing impairment and minimizing disability. As a physiatrist, we have tried to provide a cost effective non surgical physiatric management so that residual disability is minimized and quality of life is improved. Regarding the incidence, bilateral involvement is more common. Also equal incidence is noted in both sexes. Housewives are affected most commonly but farmers, carpenters and manual labours are also significantly affected.

Keywords: Rotator cufftear, Supraspinatus tendon, Physiatric management, Ultrasound therapy(UST), Therapeutic exercise, Quality of life (QOL).

O29

Prolotherapy versus corticosteroid injections for the treatment of plantar fasciitis: a randomized controlled trial

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Chronic plantar fasciitis is a degenerative tissue condition and one of the most common causes of foot pain requiring professional care among adults. In this study we have compared improvement in pain and foot function in patients with chronic plantar fasciitis following P2G (prolotherapy) versus Triamcinolone acetonide injections.