Introduction

Cervical spondylosis is the defined as "spinal canal and neural foraminar narrowing in cervical spine secondary to multifactorial degenerative changes." This is one of the most common degenerative disorders of the spine, affecting 95% of patients by the age of 65 years. The degeneration of the intervertebral disc stems with osteophyte formation of the. Amphiarthrodial joint, differentiating with arthritis, which may be connected with. Diarthrodial joints also synovial space. The non-inflammatory disc degeneration is one of the defining characteristics of spondylosis.

Cervical spondylosis is a degenerative disorder started in the intervertebral disc and progressing with the advancement in the age to involve more than one disc it covers the pathology in the spine and also neurological syndrome connected with it. Approximately 5% of the people under forty years age, 20% of people over forty years of age and around 75% of people over sixty years of age have some degree of degeneration.

As there are many controversies and unclear results with the use of intermittent cervical traction in cervical spondylosis the purpose of this study was to see a clear result of the effectiveness of intermittent cervical traction on pain and disability in patients with cervical spondylosis along with conventional Rehabilitation program with specific protocol.

X-ray of neck showing Cervical Spondylosis

Methods and Material

The present clinical study was conducted on 30 patients were include in the study with Cervical Spondylosis diagnosed in OPD Department of Physical Medicine & Rehabilitation, KGMU, Lucknow and treatment had given in Physiotherapy unit K.G.M.U. Lucknow. Study duration was from Jan 2017 to July 2017.

INCLUSION CRITERIA

- Both men’s and females were included with age 45-65 years.
- Unilateral upper extremity pain, paresthesia or numbness.
- Neck handicap list score for 10 or more in 3 of 4 tests for clinical prediction rule positive Spurling test Distraction test
- Upper limb tension test-1.
- Ipsilateral cervical rotation less than 60 degree.

Exclusion Criteria

- History of previous cervical or thoracic spine surgery Bilateral upper extremity
- Symptom
- Cervical trauma
- Shoulder and elbow musculoskeletal problems Fracture of spine and upper limb
- Rheumatoid arthritis
- Osteoporosis
- Current use of steroidal medication prescribed for radiculopathy symptoms.

INTERVENTION

30 patients both male and female were taken satisfying Inclusion criteria were divided under two group: Group A and Group B patients were evaluated toward day 0 and follow up at 2nd and 4th weeks with help of neck disability index (NDI) and numerical rating scale (NPRS).

I. Group A (Control group)

Patient in this group received a 4 weeks conventional rehabilitation program includes hot pack and exercise program. An exercise program includes cervical retraction, cervical extension, deep cervical flexors, strengthening scapular strengthening exercise.
II. Group B (experimental group)

Patient in this group but also treated identically to that of the control group that is with the conventional rehabilitation program which includes hot pack and exercise but in addition to that patient in this group received intermittent cervical traction. The patient were positions supine with the cervical spine place at an angle of 15 degree of flexion. The traction force given to the patient was 10% of their body weight but can be adjustable according to patient tolerance the hold and relax was set 50 seconds hold and 10 second relax. Duration of traction was 10 minutes treatment received by patient was 5 days per week for 4 weeks.

The mean and the standard deviation (SD) of Day0, after 2nd week and after 4th week NDI scores for both, Group A and Group B. The intra group Day0, 2 week and 4th week analysis of the NDI score shows a mean difference of 3.267 (t = 10.347, p< 0.00), which is highly significant statistically (p < 0.05). The mean and the standard deviation (SD) of Day0, 2nd week and 4th week NPRS scores for both, Group A and Group B. The intra group comparison of NPRS score was 5.200 (p=.001), shows a statistically highly significant reduction (P<0.05) in reported rate of pain after 4 weeks of interventions.

Graph – I Comparison Of NDI Between Group A And Group B

Conclusion

On the basis of results of the study it may be concluded though Hot pack and neck exercise are effective, the addition of intermittent cervical traction with Hot pack and exercise is even more effective in the management of cervical spondylosis. Cervical traction is a widely used technique. This form of treatment may be useful because it promotes immobilization of the cervical region and widens the foraminal openings. The use of cervical exercises has been advocated in patients with cervical spondylosis. Isometric exercises are often beneficial to maintain the strength of the neck muscles. Neck and upper back stretching exercises, as well as light aerobic activities, also are recommended. Passive modalities generally involve the application of heat to the tissues in the cervical region, either by superficial heat therapy (e.g., moist-heat packs) or deep heat therapy (S.W.D. and ultrasound therapy).

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