

IDIOPATHIC CERVICAL PAIN: ANALYSIS OF VARIOUS TREATMENT MODALITIES

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ABSTRACT: INTRODUCTION: Chronic cervical pain constitutes one of major orthopedic ailment that is unpleasant to both patient and surgeon. A study is done to analyse the various modalities being practiced to mask the symptoms complex arising out of it. **METHODS:** The study conducted between May 2013 to December 2013 involve retrospective analysis of 300 patients aged between 30 to 60 years visiting orthopedic OPD since last 2 years and had used some form of treatment modality whether non-operative or operative for chronic neck pain. Patients were divided into 4 groups involving a) Neck muscle strengthening exercises (NMS) b) Pharmacological regime c) Combined muscle strengthening and drug regime (CMD) d) surgical intervention. **RESULTS:** On analysis of results with 90 patients each in group a, b, c and 30 patients in group d, the patient relief was higher in group c planned for CMD regime followed by group b, group a and group d in decreasing order of response rate. The pain relief was not as good as expected in group d comprising of patients planned for surgical intervention comprising decompression with dissection. **CONCLUSION:** It is seen that chronic neck pain being one of very common disease complex is very disabling to patient and irritates the surgeon also because of nonrespondness of patient to treatment and complexity of surgical intervention if undertaken. Our study analyses that among the various methods given in literature CMD regime respond best to majority of cases. The regime is cheap, easy to follow and had best response rate as compared to other modalities compared.

KEYWORDS: Cervical spondylosis, CMD, idiopathic.

INTRODUCTION: Neck pain involves a wide spectrum of pathologies affecting individuals of every age group.^[1,2] The pathology can be intrinsic or extrinsic to vertebral column. In children the pathology is commonly seen to be extravertebral in origin. It involves pathologies like tonsillitis, pharyngitis, fistulas, trauma, infections etc. Adults represent a different spectrum of pathologies like traumatic pain, degenerative pain,^[3] nerve root compressions, prolapsed discs,^[4] malignancy etc. A wide group of population represents a symptom complex involving chronic neck pain idiopathic in nature with questionable diagnosis pertaining to a single specific disease. Treatment modalities in cervical pain vary from non-operative methods employed in major bulk of population with many reasons varying from patient to surgeon. Surgical methods are being preferred now in many centres due to overenthusiasm associated with both patient to get rid of pain and in surgeon to cure his patient at the earliest.^[5] We conducted a study to retrospectively analyze about 300 patients aged between 30 to 60 presenting with chronic neck pain and taking various treatment modalities.

MATERIALS AND METHODS: The study involves 300 patients aged between 30 to 60 years with 200 females and 100 males. The selection criteria includes patient with neck pain more than 6 weeks in duration being called as chronic in nature and routine clinical and radiological examination^[6,7] not proved to be much conclusive. The patients presenting with radicular pain with MRI done but having

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adequate canal diameter (>10mm) and foraminal diameter adequate enough to rule out cord/root compression are also included in study.^[8] Patients with neck trauma, infections, tumours, myelopathy, autoimmune pathology like RA, AS are being excluded from study.

A questionnaire was made to assess patient's relief level quantitatively. Patients were asked to quantify the amount of relief according to scale. Increasing score predicts an increase relief level.

Sl. No.	Questionnaire	Grade/ Score
1	No relief at all	0
2	Mild relief allowing patient to perform needful routine activities.	1
3	Moderate relief allowing patient to omit the routine dose of drugs.	2
4	Pain relief sufficient enough to discontinue pain relieving drugs.	3
5	No pain at all for at least 3 months of discontinuation of treatment.	4
6	No pain at all even after > 6 months of discontinuation of treatment.	5

Table 1

Patients were divided into 4 groups based on treatment modality primarily used and involve a) Neck muscle strengthening exercises (NMS) b) Pharmacological regime c) Combined muscle strengthening and drug regime (CMD) d) surgical intervention.

Each group a, b and c contains a total of 90 patients each and group d contains 30 patients. The surgical procedures being includes nerve root injections in 8 cases and dissection and foraminal decompression through anterior approach in 22 cases.^[9,10,11,12,13,14]

Scores in each group was recorded after a minimum period of 6 months following treatment modality used.

RESULTS: Questionnaire was shown to patients and explained fully and asked to grade their level of satisfaction. All are explained not to hide the response as non-satisfaction with one mode of treatment will be replaced by other mode. The results are shown in Table 2.

Group	Treatment modality used	Grade/ Score					
		0 (No. of Patients)	1 (No. of Patients)	2 (No. of Patients)	3 (No. of Patients)	4 (No. of Patients)	5 (No. of Patients)
a	Neck muscle strengthening exercises (NMS)	36	34	20	-	-	-
b	Pharmacological regime	10	28	52	-	-	-
c	Combined muscle strengthening and drug regime (CMD)	-	-	4	20	48	18
d	Surgical intervention.	8	16	4	-	2	-

Table 2

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Treatment modality included in group a include physiotherapy with neck muscle strengthening^[15] exercises as prime mode of treatment and occasional use of pain relieving medications to abolish the acute attacks. Group b includes only the exclusive use of drugs including NSAID"s, neuropathic medications, antioxidants and antispasmodics. Group c involves combined use of pharmacological and neck muscle strengthening exercises. Group d primarily concentrates on the surgical mode of treatment ranging from foraminal steroid injections to anterior dissectomy.

On analysis of results it is seen that some patients i.e., 36 in Group a, 10 in Group b, and 8 in Group d still falls in Grade 0 showing no response to treatment after a period of about 6 month of treatment. The maximum grade achieved in Group a, b is 2.

The best responses are appreciated in Group c using combined pharmacological and muscle strengthening regime with 48 patients reaching Grade 4 and 18 patients showing Grade 5 score with complete relief of symptoms after a period of 6 months of completion of treatment.

DISCUSSION: Cervical neck pain constitutes one of most common orthopedic ailment being treated by every orthopedic surgeon. In developing countries the bulk being treated by a general orthopedician due to lack of sufficient number of specialists. It is seen that the ailment being idiopathic in nature in majority of cases as both clinical and radiology was not able to explain the prodrome of symptom complex associated with patient. The treatment modality varies from every surgeon to surgeon and with one place to other. Not a single standard treatment being advised in literature to make the patient pleasant to get rid of symptoms. Our study aims to draws results using all modalities and to grade the response with each modality.

Our study concludes that idiopathic chronic cervical pain shows best relief when CMD regime is being implicated. The regime being easy to use, cheap but needs special efforts of routine muscle strengthening exercises. The regime to be proved very beneficial in both male and females involving the middle age group.

REFERENCES:

1. McNab I. Symptoms in Cervical Disc Degeneration. In: Sherk H, ed. *The Cervical Spine*, 2nd ed. Philadelphia: Lippincott, 1989: 599.
2. Gore D, Sepic S, Gardner G, Murray M. Neck Pain: A Long Term Follow-up of 205 Patients. *Spine* 1987; 12: 1.
3. Nagata K, Ohashi T, Abe J, et al. Cervical Myelopathy in Elderly Patients: Clinical Results and MRI Findings Before and After Decompression Surgery. *Spinal Cord* 1996; 34: 220.
4. Montgomery D, Brower R. Cervical Spondylotic Myelopathyâ€"Clinical Syndrome and Natural History. *Orthop Clin North Am* 1992; 23: 487.
5. Simmons E, Bhalla S. Anterior Cervical Dissectomy and Fusion. *J Bone Joint Surg Br* 1969; 51: 255.
6. Boos et al., 1995. Boos N, Rieder R, Schade V, et al: The diagnostic accuracy of magnetic resonance imaging, work perception, and psychosocial factors in identifying symptomatic disc herniations. *Spine* 1995; 20: 2613.
7. Kieffer et al., 1984. Kieffer SA, Cacyorin ED, Sherry RG: The radiological diagnosis of herniated lumbar intervertebral disk: a current controversy. *JAMA* 1984; 251: 1192.
8. Clark C. Cervical Spondylotic Myelopathy: History and Physical Findings. *Spine* 1988;13:847.

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9. Kepes and Duncalf, 1985. Kepes ER, Duncalf D: Treatment of backache with spinal injections of local anesthetics, spinal and systemic steroids. A review. Pain 1985; 22: 33.
10. Larkin et al., 2003. Larkin TM, Carragee E, Cohen S: A novel technique for delivery of epidural steroids and diagnosing the level of nerve root pathology. J Spinal Disord Tech 2003; 16: 186.
11. Robinson R, Riley L. Techniques of Exposure and Fusion of the Cervical Spine. Clin Orthop 1975; 109: 78.
12. Robinson R, Walke A, Ferlic E, Wiecking D. The Results of Anterior Interbody Fusion of the Cervical Spine. J Bone Joint Surg [Am] 1962; 44A: 1569.
13. Saunders R, Bernini P, Shireffs T, Reeves A. Central Corpectomy for Cervical Spondylotic Myelopathy: A Consecutive Series with Long Term Follow-up Evaluation. J Neurosurg 1991; 74: 163.
14. Simpson J, An H. Degenerative Disc Disease of the Cervical Spine. In: An H, ed. Surgery of the Cervical Spine. Baltimore: Williams and Wilkins, 1994: 181.
15. Nolan J, Sherk H. Biomechanical Evaluation of the Extensor Musculature of the Cervical Spine. Spine 1988; 13: 9.

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