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STSH150048

EFFECTIVENESS OF NUX VOMICA IN PAIN MANAGEMENT OF CERVICAL SPONDYLOSIS

<u>Introduction:</u> (1).

Homoeopathy claims to be "The science of Therapeutics". This claim

is because of the assumption that therapeutics is a science which has developed after homoeopathy. It is the duty of us, young homoeopaths to prove the significance of mode of treatment of homoeopathy. Homoeopathy deals with the nature and conditions of a disease and medicine is selected based on the law of similimum.

Cervical spondylosis is a common chronic degenerative condition of the cervical spine that affects the vertebral column and intervertebral dics of the neck as well as the contents of the spinal cord ⁽²⁾. Thus cervical spondylosis can be defined as 'vertebral osteophytosis secondary to degenerative disc disease, ⁽³⁾. Cervical spondylosis is a leading musculoskeletal disability accounting for loss of human working hours ⁽⁴⁾. According to ICD-10 classification of WHO, Cervical spondylosis is listed under code, M47.8 ⁽⁵⁾.

It is mainly caused due to wear and tear of the cartilages and bones in the cervical spine in neck. Chronic cervical degeneration is the most common cause of progressive spinal cord and nerve root compression. Spondylotic changes can result in stenosis of the spinal canal, lateral recess, and foramina. Spinal canal stenosis can lead to myelopathy, whereas the latter two can lead to radiculopathy ⁽⁶⁾. One or more of the cervical nerve roots may be compressed, stretched, or angulated; and myelopathy may also develop as a result of insufficiency, or recurrent minor trauma to the cord. The C5 and C6 nerve roots are the most commonly involved, and examination usually reveals weakness of muscles supplied by these roots (eg: deltoid, supraspinatus and infraspinatus, biceps, brachioradialis), pain or sensory loss about the shoulder and outer

border of the arm and forearm, and depressed biceps and brachioradialis reflexes

While it is largely due to age it can be caused by any other factors such as irregular lifestyle, wrong postures, sedentary jobs, lack of exercise, stress, disk

activities that put extra strain on your neck (heavy lifting, poor posture, repetitive movements, etc.), family history of the condition, smoking, being inactive and overweight, etc., Cervical spondylosis is a life style disorder. Life style diseases are those whose occurrence is primarily based on daily habits of people and are a result of an inappropriate relationship with their environment (10). Cervical spondylosis commonly affects those (9), doing prolonged work with neck in a flexed position (11). It may be precipitated by stress, anxiety, tension or depression

herniation, dehydrated spinal disks, bone spurs, ligament stiffness etc (8), neck injuries,

As per the cross sectional study of the cervical spondylosis patients, who attended the different Out patients and Rural centres of Sarada Krishna Homoeopathic Medical College & Hospital during 2014-2015, it came to my notice that cervical spondylosis is quite prevalent among younger and middle age group and it is more common in females.

Degeneration of intervertebral discs and secondary osteoarthritis (cervical spondylosis) is often asymptomatic, but may be associated with neurological dysfunction (13). Clinically, several syndromes, both overlapping and distinct are seen. These include neck and shoulder pain, sub occipital pain, radicular symptoms and

cervical spondolytic myelopathy (CSM),etc.

The pain can be severe in some cases.

Headaches may also occur, which usually start at the back of the head, just above the neck, and travel over the top to the forehead. Pain usually comes and goes, with flare-ups followed by symptom-(14). free periods. Around 1 in 10 people develop long-lasting (chronic) pain (15).

Medical treatments for cervical spondylosis include neck immobilization, pharmacologic treatments, lifestyle modifications, and physical modalities (eg, traction, manipulation, exercises). No carefully controlled trials have compared these modalities; therefore, these therapies are often initiated based on a clinician's preference or

speciality

The normal practice in the Allopathic system is to treat neck pain with the usual painkillers, Non Steroidal Anti Inflammatory Drugs (NSAIDs) etc..

(16). In cases

where patients feel vertigo or dizziness, some medicines are prescribed to contain the vertigo that is often present with the pain. Traction is often provided as another short term measure. Wearing a collar is often recommended by doctors. Some patients get short term relief from restricting movement by the use of a collar. While this may be of some help in the short term, it has a detrimental effect in the long run. Restricting the use of neck muscles for long tends to reduce the strength of the muscles and results in atrophy of the muscles. This is counterproductive as there is a need of stronger muscles to support the neck and head. Atrophied muscles become weak and are unable to provide the requisite support to the neck and the head. This in itself starts causing pain. Therefore the use of collar should be minimal and done only when there is acute pain (17).

Surgery is adviced for cervical radiculopathy in patients who have intractable pain, progressive symptoms or weakness that fail to improve by conservative measures. Surgical procedures may arrest the progression of disability but may not result in neurological improvement and may precipitate acute neurological conditions (13).

Lifestyle modifications (eg, neck schools, instruction in body mechanics, relaxation techniques, postural awareness, ergonomics and/or workplace modifications) may alleviate symptoms ⁽¹⁶⁾.

Cervical spondylosis is an irreversible damage and the conventional method of treatment used for pain relief has more side effects than giving relief to the patient. This awareness had made the patients turn towards the alternative systems of medicine and Homoeopathy tops the list.

Nux vomica is created from the seeds of the strychnos Nux vomica tree also known as poison nut and vomiting nut, Kuchila. The tree belongs to the

(18).

Loganiaceae family. The main alkaloid in the seeds are strychnine and brucine

vomica is a frequently indicated remedy for neuralgia especially cervico-brachial (19). neuralgia

Dr.Boerick says "Nux Vomica is pre eminently the remedy for many of

the conditions incident to modern life" Cervical spondylosis, being one among

lifestyle disorder with neuralgic pain can be well managed wit Nux vomica when prescribed homoeopathically. Thus, Nux vomica can serve as an effective medicine in managing the pain of patients with cervical spondylosis and also prevent further degeneration of the cervical spine and thus improving the health of the patient.

Need For the Study:

With the development of IT field there is an increase in use of computers which lead to postural deformities like cervical spondylosis, the developing countries like India face a major problem of health management among citizens

along with its economic burden

(20).

This study would bring an evidence based

research in the pain management of cervical spondylosis with Nux vomica clinically, so that the modern generation can stay away from the conventional medications and its side effects. This would also give confidence for the budding Homoeopaths in therapeutic management of degenerative and life style disorders.

This study has focused on the pain management of diagnosed cases of cervical spondylosis with Nux vomica prescription and its effectiveness would be analysed.

REVIEW OF LITERATURE:

CERVICAL SPONDYLOSIS:

Synonyms:

Arthritis-neck, cervical osteoarthritis, neck arthritis, chronic neck pain.

Definition:

Cervical spondylosis refers to a degenerative process of the cervical spine producing narrowing of the spinal canal and neural foramina, producing compression of the spinal cord and nerve roots, respectively (29).

Cervical spondylosis refers to degenerative disc disease with proliferative changes in the surrounding structures especially the bones and meninges $^{(30)}$.

Etymology:

Origin of the word "cervix" is from a Latin word 'cervic-' meaning neck, especially the back part of the neck, the nape of neck like portion of an organ. First known in use in the 15th century.

Origin of the word "spondylosis" is from the greek word 'sphondylos' meaning vertebra and 'osis' meaning condition. Spondylosis means a painful condition (31).

resulting from degeneration of the intervertebral discs

ICD-10 CLASSIFICATION:

WHO has listed spondylosis under the code, M47.

- M47.012- Anterior spinal artery compression syndromes, cerviacal region
- M47.022-vertebral artery compression syndromes, cervical region
- M47.12-spondylosis with myelopathy, cervical region
- M47.22-spondylosis with radiculopathy, cervical region
- M47.812-spondylosis without myelopathy or radiculopathy, cervical region
- M47.892-other spondylosis, cervical region (32).

Risk Factors:

The greatest risk factor for cervical spondylosis is aging. Cervical spondylosis often develops as a result of changes in your neck joints as you age. Disk herniation, dehydration, and bone spurs are all results of aging. Factors other than aging can increase your risk of cervical spondylosis. These include:

- neck injuries,
- work-related activities that put extra strain on your neck from heavy lifting,
- holding your neck in an uncomfortable position for prolonged periods of time or repeating the same neck movements throughout the day (repetitive stress),
- genetic factors (family history of cervical spondylosis),
- smoking,
- Being overweight and inactive (8).

Pathophysiology:

Intervertebral disks lose hydration and elasticity with age, and these losses lead to cracks and fissures. The surrounding ligaments also lose their elastic properties and develop traction spurs. The disk subsequently collapses as a result of biomechanical incompetence, causing the annulus to bulge outward. As the disk space narrows, the annulus bulges, and the facets override. This change, in turn, increases motion at that spinal segment and further hastens the damage to the disk. Annulus fissures and herniation may occur. Acute disk herniation may complicate chronic spondylotic changes.

As the annulus bulges, the cross-sectional area of the canal is narrowed. This effect may be accentuated by hypertrophy of the facet joints (posteriorly) and of the ligamentum flavum, which becomes thick with age. Neck extension causes the ligaments to fold inward, reducing the anteroposterior (AP) diameter of the spinal canal.

As disk degeneration occurs, the uncinate process overrides and hypertrophies, compromising the ventrolateral portion of the foramen. Likewise, facet

hypertrophy decreases the dorsolateral aspect of the foramen. This change contributes to the radiculopathy that is associated with cervical spondylosis. Marginal osteophytes begin to develop. Additional stresses, such as trauma or long-term heavy use, may exacerbate this process. These osteophytes stabilize the vertebral bodies adjacent to the level of the degenerating disk and increase the weight-bearing surface of the vertebral

endplates. The result is decreased effective force on each of these structures (6).

Clinical features:

Symptoms:

Most people with cervical spondylosis don't have significant symptoms.

If symptoms do occur, they can range from mild to severe and may develop gradually or occur suddenly. One common symptom is pain around the shoulder blade. Patients will complain of pain along the arm and in the fingers. The pain might increase when:

- Standing
- Sitting
- Sneezing
- Coughing
- tilting your neck backward

Another common symptom is muscle weakness. Muscle weakness makes it hard to lift the arms or grasp objects firmly.

Other common signs include:

- a stiff neck that becomes worse
- headaches that mostly occur in the back of the head
- tingling or numbness that mainly affects shoulders and arms, although it can also occur in the legs
- Symptoms that occur less frequently often include a loss of balance and a loss of bladder or bowel control. These symptoms warrant immediate medical attention (8).

Common clinical syndromes associated with cervical spondylosis include the following:

Cervical pain:

- Chronic suboccipital headache may be present. Mechanisms include direct nerve compression; degenerative disk, joint, or ligamentous lesions; and segmental instability.
- Pain can be perceived locally, or it may radiate to the occiput, shoulder, scapula, or arm.
- The pain, which is worse when the patient is in certain positions, can interfere with sleep.

Cervical radiculopathy:

- o Compression of the cervical nerve roots leads to ischemic changes that cause sensory dysfunction (eg, radicular pain) and/or motor dysfunction (eg, weakness).
- o Radiculopathy most commonly occurs in persons aged 40-50 years.
- An acute herniated disk or chronic spondylotic changes can cause cervical radiculopathy and/or myelopathy
- The C6 root is the most commonly affected one because of the predominant degeneration at the C5-C6 interspace; the next most common sites are at C7 and C5.
- Most cases of cervical radiculopathy resolve with conservative management; few require surgical intervention.

Cervical spondylotic myelopathy:

- o It is the most serious consequence of cervical intervertebral disk degeneration, especially when it is associated with a narrow cervical vertebral canal.
- Cervical myelopathy has an insidious onset, which typically becomes apparent in persons aged 50-60 years. Complete reversal is rare once myelopathy occurs.
- o Involvement of the sphincters is unusual at presentation, as based on the patient's perception of symptoms ⁽⁶⁾.

Less common manifestations:

- Primary sensory loss may be present in a glove like distribution.
- o Tandem spinal stenosis is a simultaneous cervical and lumbar stenosis resulting from spondylosis. It is a triad of findings: neurogenic claudication, complex gait abnormality, and a mixed pattern of upper and lower motor neuron signs.
- o Dysphagia may be present if the spurs are large enough to compress the esophagus.
- Vertebrobasilar insufficiency and vertigo may be observed.
- Elevated hemidiaphragm, caused by spondylotic compression of C3-4 (as noted in a case report), may be another finding.

Investigations:

x-ray of cervical spine :

- Lateral view shows the loss of normal lordosis, diminution in the disc space and growth of osteophytes.
- Oblique view shows the protruding osteophytes into inter-vertebral foramina.

Magnetic resonance imaging scan of the neck (MRI):

• Indentation of the thecal sac, hardening of the intervertebral discs, foraminal narrowing and facet arthropathy.

Contrast Myelogram:

• Shows protrution of discs into the cal sac as negative shadow with total extradural obstruction.

* EMG and nerve conduction velocity test:

• Done to examine nerve root function (33).

MRI scans and discography (validated by the presence of a normal control level) is used to evaluate the anterior column, whereas single photon emission computed tomography (SPECT) scans and facet injections are used to investigate the posterior column ⁽³⁴⁾.

Management:

- Cervical collar may be used day and night.
- As pain subsides active exercises for neck and shoulder combined with heat treatment. Exercises designed to strengthen the shoulder girdle muscles, especially elevators of the scapula help to relieve traction on the nerve roots and prevent recurrence of symptoms (35).
- Head traction may be tried provided there are no signs of cord compression.
- When cervical movement is limited over 3 or 4 segments, laminectomy and decompression may be indicated. Anterior disectomy and fusion may be advisable in presence of excessive mobility of cervical spine (36).

NUX VOMICA:

PHARMACOLOGICAL DATA:

Word meaning:

The word Nux vomica is derived from the latin word 'NUX' meaning 'nut' and 'vomere' meaning 'vomiting' because of the peculiar property of the nut to induce vomiting.

Botanical name:

Strychnos nux vomica (Linn).

Family:

Loganiaceae

Common names:

Poison-nut; Kuchila (Bengal); (German) Kraehenaugen; (French) Noix vomique; (also known angustura bark), Mushti(Telungu); Kuchala (urudu); Kanjhiram (malayalam); Ettikkottai (Tamil).

Habitat:

Found in forests of western ghats and Himalayas

Part used:

Seeds (37).

Preparation:

Ten grains of nux vomica seed, finely triturated in a warm mortar, are macerated with 1000 drops of alcohol, without heat, for a week, to make a tincture.

Of this, one drop is raised to the decillion-fold potency through 29 other diluting phials, each filled to three quarters with alcohol, by means of two succusions given to each phial after the dilution is made ⁽³⁹⁾.

Description:

Nux vomica is a medium-sized tree with a thick short trunk. The wood is dense, hard white, and close-grained. The branches are irregular and are covered with a smooth ashen bark. The young shoots are a deep green colour with a shiny coat. The leaves have an opposite arrangement, short stalked, are oval shaped, also have a shiny coat and are smooth on both sides. The leaves are about 4 inches (10 cm) long and 3 inches (7.6 cm) wide. The flowers are small with a pale green colour with a funnel shape. They bloom in the cold season and have a foul smell. The fruit are about the size of a large apple with a smooth and hard shell which when ripened is a lovely orange colour. The meat of the fruit is soft and white with a jelly-like pulp containing five seeds covered with a soft woolly substance (40).

The seed are flat, disc shaped, irregularly circular, 10-30mm in diameter and 4-6 mm in thickness. It has a broad, rounded and thickened margins, depressed at the centre. They are very hard, with a dark grey horny endosperm where the small embryo is housed that give off no odour but possess a very bitter taste ⁽³⁷⁾.

Composition:

The dominating constituent of Nux Vomica is a complex compound-two intensely poisonous alkaloidal products, a glucoside, and acids. These alkaloids are strychnine, Brucine, and perhaps Igasurine (yet in doubt). The main acid is Igasuric acid, while the glucoside is named Loganin. These are colourless bodies and the alkaloids being very bitter, and energetically poisonous. Brucine is similar to

strychnine, but acting with less violence and more slowly (38).

Prover:

Introduced by Master Hahnemann and proved upon himself, his son Frederick, Stapf, Flaeming. Later proving by Robinson, Berridge and Wilson with high potencies.

History and Authority:

Master Samuel Hahnemann introduced this drug in our Materia Medica in 1805 (37).

Doctrine of signature:

The poison nut tree has a crooked trunk and irregular, awkward-looking branches. Its flowers bloom in the cold season and have a disagreeable odour, characteristics contrary to most flowers which bloom in the warm season and have a pleasant odour. These contrary features are characteristics of people who need Nux vomica as well. They are chilly, both physically and psychologically. They are disagreeable, irritable, and quarrelsome. The poison nut tree's wood is closing grained and hard. The Nux vomica people are similarly coarse, close minded, and hard-headed **(41).**

NUX VOMICA AS A CERVICAL SPONDYLOSIS REMEDY:

1. Dr. Clarke says, Nux vomica: Neck:

• Cervico-brachial neuralgia, neck stiff, pain down shoulder < Touch, < cold;

- Wrenching pain or pain like that caused by a strain in shoulder blade;
- Jerks like electric shocks up spinal column, which raised up body;
- Burning, Pressing and stitches between the shoulder-blades;
- Shooting and constrictive pain, pains between shoulder-blade;
- Pulling pain as from a bruise, rigidity and sensation of heaviness in nape of neck;⁽²¹⁾

2. Dr. Harris Ruddock says,

Nux vomica:

Leading use: Spasmodic affection of nervous system; it is pre-eminently suited to all affections of nervous system by haste and worry of business, excessive study, anxiety, etc... or by use of alcoholic drinks or other stimulants. Hence its adaptation to the ailments of the city man of business, the sedentary, the studious and intemperate.

- Pain and weariness, with sensation as if bruised;
- Neuralgic affection of spinal nerves with tingling, hard, aching, sticking pains (22).

3. Dr.C.M.Boger says,

Nux vomica:

- Painfully stiff neck;
- Pains down shoulder;
- Crawling along spine; (23).

4. Dr. Constantine herring says,

Nux vomica:

- Cervico-Brachial neuralgia, neck stiff, pain down shoulder;
- Tearing pain, in paroxysms, in nape of neck, in evening;
- Spinal irritation; numbness and formication along spine and into extremities
- Spinal weakness and general disability, myelitis; (24).

5. Dr.Lilianthel says

Nux vomica:

• Rheumatic pains, with sensation of weakness in shoulder and arms;

- Soreness in shoulder joints;
- Drawing in arms extending from shoulder to the fingers, with sensation as if the arms were asleep (25).

6. Dr. William Boericke says,

Nux vomica:

Back:

- Burning in spine;
- Cervico-brachial neuralgia; Worse, Touch;

Extremities:

- Arms and hands go to sleep, Paresis of arms with shocks;
- Sensation of sudden loss of power of arms and legs in the morning (19).

7. Dr. Vikas Verma says,

Cervical Spondolysis: It Is becoming the fastest growing ailment in today's hectic life, Causes may be Many to name a few Lack of exercise, too much work on computers or table work ,heavy shoulder bags, bad posture of watching TV, reading and writing, Stress and Occupational causes. It becomes more complicated and Urgent when it gets associated with few symptoms like vertigo, excessive pain in holding neck, tingling and numbness in arms and with severe headache. In my Opinion I have found the following to be more useful.

- Pain Cervical region extending to arm ---- Nux vomica (26).
- **8. Nux vomica** is specially indicated for torticollis (wry neck).wry neck with shooting pain and stiffness in the nape of neck either from nervous shock or cold is the symptom of this remedy. The pains are aggravated in the morning. There is also bruised type of pain and pulling sensation in the neck and below scapula. Neuralgia is present in cervico brachial region, which is worse by touching. The pains are more on right shoulder and deltoid. Stiffness with head drawn to one side-Nux vomica (27).

OTHER RESEARCHES ON NUX VOMICA AND CERVICAL SPONDYLOSIS:

- 1. Phytochemical study, cytotoxic, analgesic, antipyretic and anti-inflammatory activities of Strychnos nux-vomica.
- . Eldahshan OA¹, Abdel-Daim MM

Author information:

Abstract:

The strychnine tree (Strychnos nux-vomica L.) (S. nux-vomica) belonging to family Loganiaceae has been a very promising medication for certain disorders. Different chromatographic methods were used to isolate the phenolic compounds from the aqueous methanolic extract of the S. nux-vomica leaves. Their identification was achieved through spectroscopic techniques. Cytotoxicity, analgesic, antipyretic and anti-inflammatory activities of S. nux-vomica leaves extract were evaluated. Five phenolic compounds were isolated and identified; Kaempferol-7 glucoside 1, 7-Hydroxy coumarin 2, Quercetin-3-rhamnoside 3, Kaempferol 3-rutinoside 4, and Rutin 5. Furthermore, the cytotoxic activity of the extract was evaluated against different cancer cell lines. The extract showed potential cytotoxic activity against human epidermoid larynx carcinoma cells (Hep-2) and against breast carcinoma cell line (MCF-7). Colon carcinoma cells (HCT) were the least one affected by the extract. In addition, the extract exhibited promising analgesic, antipyretic as well as antiinflammatory activities. It is concluded that, leaves extract of S. nux vomica possess potent cytotoxic, analgesic, antipyretic and anti-inflammatory activities. These activities could be due to the presence of phenolic compounds revealed by our phytochemical investigations (42).

2. Therapeutic effect of nux vomica total alkali gel on adjuvants arthritis rats

Zheng Y¹, Wu Z, Liu J, HYPERLINK "http://www.ncbi.nlm.nih.gov/pubmed/?term=Hu%20J%5BAuthor%5D&cauthor=tru e&cauthor_uid=22860457" Hu J, HYPERLINK "http://www.ncbi.nlm.nih.gov/pubmed/?term=Yang%20C%5BAuthor%5D&cauthor=true&cauthor_uid=22860457" Yang C.

Abstract:

OBJECTIVE:

To observe the therapeutic effect and mechanism of nux vomica total alkali gel

(NVTAG) on adjuvants arthritis (AA) rats.

METHOD:

SD rats were randomly divided into nine groups: the normal group, the AA model group, NVTAG high, middle and low-dose (25, 12.5, 6.25 mg x kg(-1)) groups and the Votalin control (diclofenac diethylamine emulgel, 50 mg x kg(-1)) group. Except for the normal group, the remaining groups were transcutaneously administered with 0.1 mL freund's adjuvant complete (FCA) for inflammation in left rear feet and then evenly treated with medicine and packed with oilpapers. The foot volume method was adopted to determine foot swelling degree, with pain scoring and polyarthritis scoring. HE staining was used to observe arthro-pathologic injury. The content of prostaglandin E2 (PGE2), interleukin-1 (IL-1), IL-6, tumor necrosis factor (TNF-alpha) and vascular epidermal growth factor (VEGF) in synovium homogenates were measured by enzyme-linked immuno-absorbent assay (ELISA) respectively.

RESULT:

Compared with the model group, NVTAG and control gel can obviously reduce the foot swelling degree, polyarthritis indicators and relieve arthro-pathologic injury in AA rats (17-21 d). The levels of IL-1, PGE2, IL-6, VEGF and TNF-alpha in synovial homogenates of AA rats were also reduced by NVTAG significantly.

CONCLUSION:

NVTAG shows an antergic effect on AA progress in rats, which is closely related to inhibition of development of inflammatory mediator (43).

OBJECTIVES OF THE STUDY:

The objectives of this study are

- To study the effectiveness of Nux vomica in the pain management of cervical spondylosis.
- To study the variation in associated symptoms during the course of treatment.
- To conclude the frequently used potencies of Nux Vomica in the treatment of cervical spondylosis.

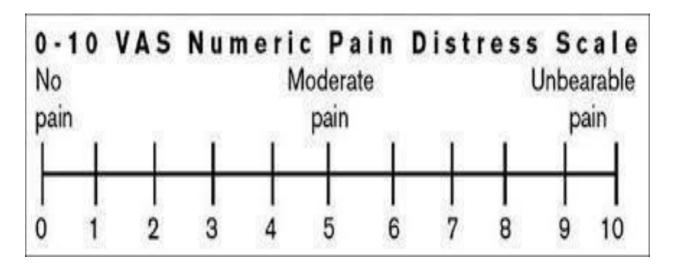
MATERIALS AND METHODS:

METHODOLOGY:

Sampling: Simple Random sampling.

30 cases of cervical spondylosis with pain attending OPD, IPD and Peripheral centres of Sarada Krishna Homoeopathic Medical collegiate Hospital are taken for this study. Diagnosis has been made based on clinical presentation and X –ray findings. Nux vomica has been prescribed on the patients, if the constitutional score indicates the remedy and the subjects are observed for changes in pain. VAS is used as a pain rating scale to record the intensity of pain before and after clinical management.

Visual Analogue Scale for Assessment of pain:



Inclusion criteria:

- Patients within the age group between 15-70 years.
- Both sexes.

Exclusion criteria:

- Severe cervical deformity cases.
- Other severe systemic diseases.
- Cases using pain killers for any other condition.

PAIN CRITERIA

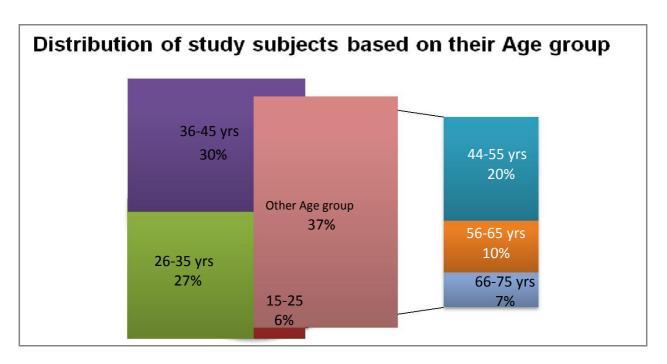
Si	Symptoms	Scoring criteria			
.No.		0	1	2	3
	Cervical Pain during movement	Absent	Mild	Moderate	Severe
	Referred Pain	Absent	Mild	Moderate	Severe
	Neck Stiffness	Absent	Mild	Moderate	Severe
	Numbness	Absent	Mild	Moderate	Severe
	Tingling	Absent	Mild	Moderate	Severe
	Weakness	Absent	Mild	Moderate	Severe
	Vertigo	Absent	Mild	Moderate	Severe
	Dizziness	Absent	Mild	Moderate	Severe
	Retro Orbital/ Temporal pain	Absent	Mild	Moderate	Severe
	Sub Occipital Headache	Absent	Mild	Moderate	Severe
	Poorly localized tenderness	Absent	Mild	Moderate	Severe
	Restriction of movements	Absent	Mild	Moderate	Severe
	Crepitus audible on neck movements	Absent	Mild	Moderate	Severe
	Paraesthesia	Absent	Mild	Moderate	Severe
	Poor balance	Absent	Mild	Moderate	Severe
	Wasting	Absent	Mild	Moderate	Severe

OSERVATION AND RESULTS:

Table 1: Distribution of study subjects based on their Age group:

Age group	Number	Percentage%
15-25	2	6.66
26-35	8	26.66
36-45	9	30
44-55	6	20
56-65	3	10
66-70	2	6.66

FIGURE:1



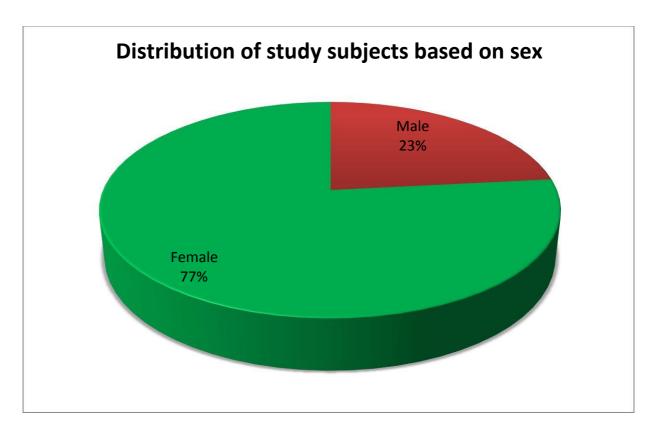
FINDINGS:

According to the study, age group of 36-45 years are most affected i.e., 9 cases (30%), followed by age group of 25-35 years which has 8 cases (26.66%), 20% (6 cases) were between the age group of 44-55 years, 3 cases (10%) were between the age group of 55-65 years, and there were 2 cases (6.66%) each between the age group of 65-70 years and 15-25 years.

Table 2: Distribution of study subjects based on sex:

Sex	Number	Percentage %
Male	7	23.33
Female	23	76.66

FIGURE 2:



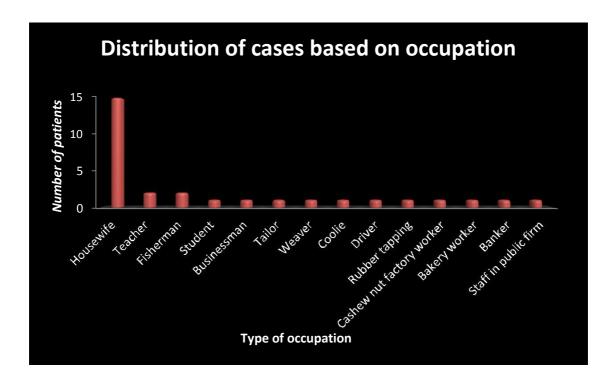
FINDINGS:

According to the study it is found that females are more affected with the disease i.e., 23 cases (76.66%) are females and 7 cases (23.33%) are males in this study.

Table 3: Distribution of study subjects based on their occupation:

Occupation	Number	Percentage %	
Housewife	15	50	
Fisherman	2	6.66	
Teacher	2	6.66	
Student	1	3.33	
Businessman	1	3.33	
Tailor	1	3.33	
Weaver	1	3.33	
Coolie	1	3.33	
Driver	1	3.33	
Rubber tapping	1	3.33	
Cashew nut factory	1	3.33	
worker			
Bakery worker	1	3.33	
Banker	1	3.33	
Staff in public firm	1	3.33	

FIGURE 3:



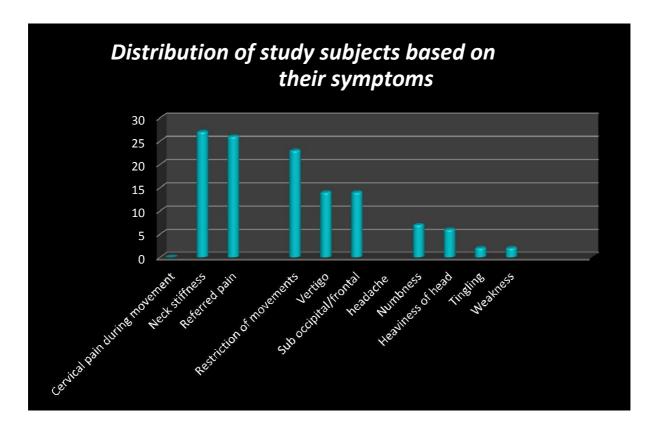
FINDINGS:

According to the study cervical spondylosis is more prevalent among housewives (15 cases) followed by teacher (2 cases), fisherman (2 cases), student (1 case), tailor (1 case), Business man (1 case), weaver (1 case), coolie (1 case), driver (1 case), rubber tapping (1 case), cashew nut factory worker (1 case), staff in public firm (1 case).

Table 4: Distribution of study subjects based on their symptoms:

Associated Symptoms	Number	Percentage%
Cervical pain during movement	30	100
Neck stiffness	27	90
Referred pain	26	86.66
Restriction of movements	23	76.66
Vertigo	14	46.66
Sub occipital/frontal headache	14	46.66
Numbness	7	23.33
Heaviness of head	6	20
Tingling	2	6.66
Weakness	2	6.66

FIGURE 4:



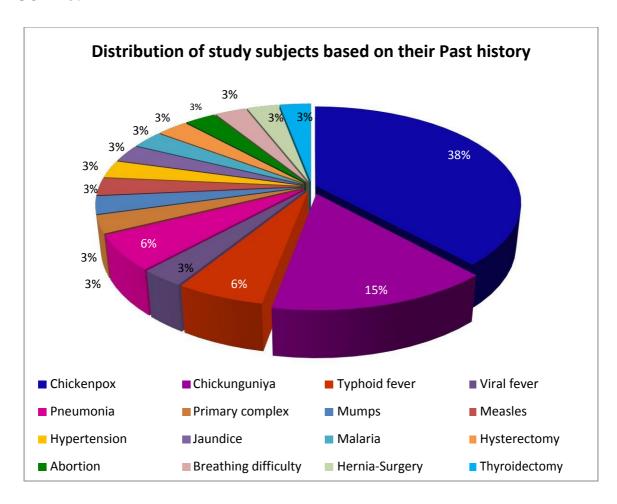
FINDINGS:

According to the study, all cases presented with cervical pain aggravated by movement. It was followed by neck stiffness in 27 cases (90%), referred pain in 26 cases (86.66%), vertigo in 14 cases (46.66%), Sub occipital/Frontal headache in 14 cases (46.66%), numbness in 7 cases (23.33%), tingling and weakness in 2 cases (6.66%) each.

Table 5: Distribution of study subjects based on their Past history:

PAST HISTORY	NUMBER	PERCENTAGE%
Chickenpox	13	43.3
Chickunguniya	5	16.6
Typhoid fever	2	6.6
Viral fever	1	3.33
Pneumonia	2	6.6
Primary complex	1	3.33
Mumps	1	3.33
Measles	1	3.33
Hypertension	1	3.33
Jaundice	1	3.33
Malaria	1	3.33
Hysterectomy	1	3.33
Abortion	1	3.33
Bronchitis	1	3.33
Hernia-Surgery	1	3.33
Thyroidectomy	1	3.33

FIGURE 5:



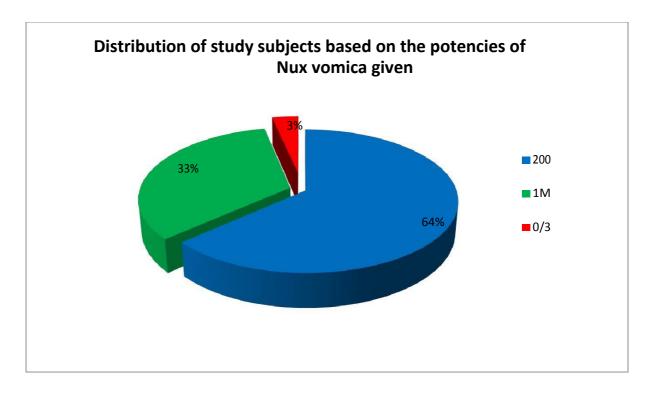
FINDINGS:

According to the study, 43.3% (13 cases) of the patients had chickenpox as past history, followed by chickenguniya in 16.6% (5 cases) of the patients, pneumonia in 6.66% (2 cases) of the patients, typhoid fever in 6.66% (2 cases) of the patients, viral fever, primary complex, mumps, measles, jaundice, malaria, hysterectomy, abortion, hernia, bronchitis, hernia- surgery, hypertension and thyroidectomy, each in 3.33% (1 case) of the patients.

Table 6: Distribution of study subjects based on the potencies of Nux vomica given:

POTENCY	NUMBER	PERCENTAGE%
200	19	63.3
1M	10	33.3
0/3	1	3.33

FIGURE 6:



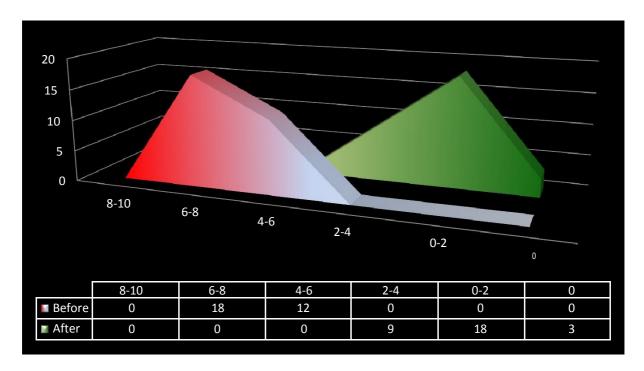
FINDINGS:

Studies on potencies revealed that 200 potency was frequently used in 64% i.e., in 19 cases, this was followed by 1M potency in 33.3% i.e., in 10 cases and 0/3 potency in 3.33% i.e., in 1 case.

<u>Table 7: Distribution of study subjects based on VAS score before and after</u> <u>treatment:</u>

VAS Score	Before	%	After	%
10-8	0	0	0	0
8-6	18	60	0	0
6-4	12	40	0	0
4-2	0	0	9	30
0-2	0	0	18	60
0	0	0	3	10

FIGURE 7: Pain pattern among patients before and after treatment:



FINDINGS:

Before treatment, out of 30 patients, 18 cases (60%) had a VAS score between 6-8 and 12 cases (40%) had a VAS score between 4-6. After treatment, out of 30 patients, 18 cases (60%) had a VAS score between 0-2, 9 cases (30%), had a VAS score between 2-4, and 3 cases (10%) had a VAS score 0.

DISCUSSION:

Among the 30 cases, 23 cases (76.66%) were females and 7 (23.33%) were males. Generally, it is found that males are prone to get the disease than females. According to the study by Irvine *et al.*, 1965, prevalence in males was 13% by third decade and 100% by the age of 70 years. In females, prevalence in females was 5% in

fourth decade and 96% above 70 years

But in this study females are more affected

with cervical spondylosis. Females are more affected due to their irregular lifestyle.

Age group between 36-45 years shows the highest incidence i.e., 30% (9 cases). Followed by age group of 25-35 years which has 8 cases (26.66%), 20% (6 cases) were between the age group of 44-55 years, 3 cases (10%) were between the age group of 55-65 years, and there were 2 cases (6.66%) each between the age group of 65-70 years and 15-25 years. This finding coincides with the findings by Rahim and

Stambough that spondylotic changes are most common in those older than 40 years But the onset of the disease occurs from an early age.

Occupation has a key role in the onset of cervical spondylosis. In this study Housewives (50%) were the most affected. Mild injuries during household work, when left untreated pave way to degenerative change in the spine leading to cervical spondylosis. Repeated stress, hard physical labour, lifting weight, and reduced mobility of cervical spine forms the other contributing factors. These factors are confirmed by the incidence of disease prevailing in other occupations like Fishermen 6.66% (2 cases), Teacher 6.66% (2 cases), and 3.33% (1 case) each of student, tailor, business, weaver, coolie, driver, rubber tapping, cashew nut factory worker, staff in public firm. But the study published by Hagberg and Wegman in 1987 showed that "heavy workers" had significantly higher rates of cervical spondylosis (28).

According to the study, all cases presented with cervical pain aggravated by movement. It was followed by neck stiffness in 27 cases (90%), referred pain in 26 cases (86.66%), vertigo in 14 cases (46.66%), Sub occipital/Frontal headache in 14 cases (46.66%), numbness in 7 cases (23.33%), tingling and weakness in 2 cases (6.66%) each. Pain is the first and most common symptom which gives the patient a

sign of his trouble. Most of the patients who took treatment never opted for homoeopathy in initial stages of disease as revealed by the symptoms, so there is a need to spread awareness about the potential of homoeopathy in treating such cases.

According to the study, 43.3% (13 cases) of the patients had chickenpox as past history, followed by chickenguniya in 16.6% (5 cases) of the patients, pneumonia in 6.66% (2 cases) of the patients, typhoid fever in 6.66% (2 cases) of the patients, viral fever, primary complex, mumps, measles, jaundice, malaria, hysterectomy, abortion, hernia, bronchitis, hernia- surgery, hypertension and thyroidectomy, each in 3.33% (1 case) of the patients.

Studies on potencies revealed that 200 potency was frequently used in 64% of the patients i.e., in 19 cases, this was followed by 1M potency used in 33.3% of the cases i.e., in 10 patients and 0/3 potency was used in 3.33% of the patients i.e., in 1 case.

According to the study before treatment, out of 30 patients, 18 cases (60%) had a VAS score between 6-8 and 12 cases (40%) had a VAS score between 4-6. After treatment, out of 30 patients, 18 cases (60%) had a VAS score between 0-2, 9 cases (30%), had a VAS score between 2-4, and 3 cases (10%) had a VAS score 0.

Out of 30 cases, all cases showed marked improvement after treatment with Nux vomica.

CONCLUSION:

- Females are most affected.
- The most common age group is found to be between 36-45 years.
- 8 cases were found even in the age group of 26-35 years suggesting that the onset of disease starts even from younger age group.
- Housewives are mostly affected.
- Cervical pain aggravated by movement was present in all cases. Other associated symptoms were neck stiffness, referred pain, vertigo, Sub occipital/Frontal
 - headache, numbness, tingling and weakness.
 - 200 was the most frequently used potency of Nux vomica.
- The scores were statistically evaluated and thus we can conclude that administration of Nux vomica could give good relief in the pain management as well as the symptomatic relief of the disease, cervical spondylosis.

SUMMARY:

A total number of 30 cases were randomly selected based on inclusion and exclusion criteria. The cases were prescribed with Nux vomica and the potencies were selected based on the patients susceptibility. All cases were followed for a minimum period of 2-6 months. The study was subjected to statistical analysis and results were made from observations.

It was found that females especially housewives were mostly affected with cervical spondylosis. The age group commonly affected was between 36-45 years of age. The disease was more prevalent among people above 40 years of age but its onset has begun from an early age. The mild injuries to cervical spine which were left untreated, repeated stress, hard physical labour, lifting weight, and reduced motility of cervical spine forms a contributing factor for this condition. Studies revealed that out of 30 cases treated with Nux vomica 200 potency was the most frequently used potency of Nux vomica.

On analysis of pain and improvement criteria scores, the role of Nux vomica in the pain management of cervical spondylosis was found to be effective.

REFERENCE:

- **1.** Dunham Carroll.A.M.,M.D , Homoeopathy the science of therapeutics, 2003 edition, B.Jain Publishers Pvt. Ltd. New Delhi.
- 2. Rana Sandeep S, Nowack William J, Talavera Francisco, Halsey James H, Benbadis Selim R. Diagnosis and Management of cervical spondylosis [Internet].

Available from: http://emedicine.medscape.com/article/1144952-overview

3. Bhasin Rick R. Cervical spondylosis [Internet].

Available from: http://www.medicinedocshare.com/html/2 html_microsoft
powerpoint cervical spondylosis read only compatibility mode 12405.ht

ml

- **4.** Kumar Santhosh MN, cervical spondyl;osis [Internet]. Available from: http://www.similima.com/practice-of-medicine-2
- 5. Switzerland. WHO. Alphabetical index, ICD-10 International Statistical Classification of Diseases and Related Health Problems. 2nd ed. Geneva: WHO; 2004; Vol.3. 547 p.
- **6.** Al-Shatoury Ahmad Hassan Hassan, MD, PhD, MHPE . Cervical spondylosis [Internet]

Available from: http://www.emedicine.medscape.com/article/306036- overview

- 7. Current medical diagnosis and treatment 2012,USA; McGraw-Hill companies, fifty first edition 2012. 1001 and 1002 p.
- 8. Delgado Amanda and Nall Rachel, Medically Reviewed by Kim Steven, MD on October 27, 2015, Cervical spondylosis .[Internet]

 Available from: http://www.healthline.com/health/cervical-spondylosis#_symptoms4
- 9. Cervical spondylosis [Internet]

Available from: http://www.precision-spine.com/chiropractic-treatment /cervical- spondylosis/?c=india&gclid=CJeMzqPO6ssCFUlmGwodjJkEbA>

- 10. Shama M, Majumdar PK. Occupational Lifestyle Diseases: an emerging issue. Indian J Occup Environ Med. 2009 December;13(3); 109-112. doi:10.4103/0019-5278.58912.
- 11. Master Farokh J. Homoeopathy in cervical spondylosis, reprint ed. New Delhi: Kuldeep B. Jain Publishers; 2007. Chapter 4, Cervical Spondylosis;p.17.
- 12. Pazimo Pablo, Cervical Radiculopathy-Neck Pain & arm pain [Internet] Available from: http://www.slideshare.net/beverlyspine/neck-pain-and-arm-pain-cervical-radiculopathy-by-pablo-pazmino-md/vl
- 13. Allen CMC, Denis M, Lueck CJ, Neurological diseases: Disorders of the spine and spi8nal cord. In: Boon Nicholas A, Colledge Nicki R, Hunter John AA, editors. Davidson's Principles and Practice of Medicine,20th ed. New York; Churchill Livingston Elsevier publications; 2006. p.1241-1242.
- 14. Updated by: Ogiela Dennis, MD, Orthopedic Surgery and Physical Medicine and Rehabilitation, Danbury Hospital, Danbury, CT. Review provided by VeriMed Healthcare Network, Cervical spondylosis, symptoms. [Internet] Available from: https://nlm.nih.gov/medlineplus/envy/article/000436.htm
- 15. Symptoms of cervical spondylosis. [Internet]
 Available from : http://www.nhs.uk/Conditions/Cervical-spondylosis/Pages/Symptoms.aspx
- 16. Rana Sandeep S, MD, Diagnosis and Management of Cervical Spondylosis Treatment & Management. [Internet]

 Available from :http://emedicine.medscape.com/article/1144952-treatment>
- 17. <u>Dr .Sharma</u> Harsh, 5 Best Homeopathic Medicines for Cervical Spondylosis, November 6, 2014. [Internet]

 Available from : http://www.homeopathicdoctor.co.in/5-best-homeopathic-medicines-for-cervical-spondylosis/
- 18. Wurges, Jennifer; Frey, Rebecca Gale, Encyclopedia of Alternative Medicine | 2005 | COPYRIGHT 2005 The Gale Group, Inc. Nux vomica. [Internet]

 Available from: http://www.encyclopedia.com/topic/nux_vomica.aspx
- 19. Boericke William; Pocket manual of Homoeopathic Materia Medica and Repertory; New Delhi: B J ain Publishers (P) Ltd; 422-425.
- 20. Prof (Dr.)Dariyani .J.D., Jaipur ,Homoeopathy in Life style disorders(LSD's), Vital Informer, cited May 2014.

- 21. Clarke.M.D. Dictionary of practical materia medica, volume-2; Published by, B.Jain publishers Pvt.Ltd. New Delhi, India.Reprint Edition 1997. P. 627
- 22. Ruddock. Harris M.D.; Ruddock's Homoeopathic Vade Mecum: Pg.no:861-862
- 23. Boger.C.M. A Synoptic key of the Materia Medica. Reprint Edition 2004. New Delhi; B.Jain Publishers(P)Ltd; p. 271
- 24. Herring Constantine. Herring's guiding symptoms of our Materia Medica. Vol VIII. New Delhi: B. Jain Publishers; Rearranged and augmented edition, 1st updated edition 2003. P. 144-146
- 25. Lilienthal Samuel, Homoeopathic Therapeutics; New Delhi: B Jain Publishers (P) Ltd; 5th Reprint Edition; p. 778.
- 26. Dr. Verma Vikas, on November 12, 2010 at 12:12am, Clinical Tips, cervical spondylosis. [Internet]. Available from: www.ncbi.nim.nih.gov/pubmed/22860457
- 27. Dua Shiv, Manage and Cure Neck Pain: Cervical Spondylosis, B.Jain Publishers. First edition:2003;Reprint edition:2005. Pg .no:170,183 Available from:

https://books.google.co.in/books?id=oBzT3_bDhoC&pg=PT189&lpg=PT18

9&dq=nux+vomica+and+cervical+spondylosis&source=bl&ots=SwO8K_tfU

X&sig=PkfXg12P8qBqMCll-

E10FcI7nrs&hl=en&sa=X&ved=0ahUKEwjfmu74kZLLAhVE6xQKHU3uB 8sQ6AEIKDAC#v=onepage&q=nux%20vomica%20and%20cervical%20spo ndylosis&f=false

- 28. Hagberg M, Wegman DH. Prevalence rates and odds ratios of shoulder-neck diseases in different occupational groups. Br J Ind Med. 1987;44:602-610: 10.1136/oem.44.9.602
- 29. Available from :http://www. Bmj.com.
- 30. Panda U N. neurological diseases. In: Panda's textbook of medicine, 1st edition. New Delhi:CBS Publishers; 2003,2004. Pg.no:209.
- 31. Etymology of cervix, spondylosis [Internet].

 Available from: http://dictionary.reference.com/browse

- 32. Available from: http://www.icd10datas.com/ICD10CM/codes/M00-M99/M45-M49/M47.
- 33. Bhattacharya Kalyan. B. cervical and lumbar spondylosis. In: Shah Siddharth N. API Textbook of medicine, 7th edition. Mumbai: The association of physicians of India; 2003. Pg .no: 887.
- 34. Voorhies Rand M. cervical spondylosis: Recognition, Differential diagnosis, and management. [Internet]. Copyright 2001 Oshsner Clinic and Alton ashner Medical

 Foundation.

Available from: http://www.oshnerjournal.org.

- 35. Kumar Anand, Mohan P.K. Diseases of vertebral column causing neurological lesions. In: Das Krishna.K.V. Textbook of Medicine. 5th edition. New Delhi: Jitendar P Viji, Jaypee Brothers medical publishers (P) Ltd; 2008. Pg: 1296,1318,1319.
- 36. Gowalla Apsi F, Golwalla Sharukh. Neurology. A Medine for students. 23rd edition. Mumbai: National book depot; 2011. Pg:512,513.
- 37. Banerjee DD. Banerjee's Augmented Textbook of Homoeopathic Pharmacy. 2nd edition. New Delhi: B.Jain Publishers Ptd Ltd; pg:206.
- 38. Lioyd John Uri. Treatise on Nux vomica. Ohio: Lioyd Publishers: 1904. Pg .no:2-5.
- 39. Hahnemann Samuel. Materia medica pura. Vol 2. Reprint ed. New Delhi: B.Jain Publishers ptd Ltd. 1999; Pg.no:223-224.
- 40. Available from: www.alDMD.com.
- 41. Available from: www.homoeopathic.com.
- 42. OA <u>Eldahshan</u> ¹, <u>Daim MM.</u> Abdel. Phytochemical study, cytotoxic, analgesic, antipyretic and anti-inflammatory activities of Strychnos nux-vomica.

[Internet] Available from: http://www.ncbi.nlm.nih.gov/pubmed/24711053.

43. Zheng Y¹, Wu Z, Liu J, Hu J, Yang C. Therapeutic effect of nux vomica total alkali gel on adjuvants arthritis rats. [Internet]. Available from: http://www.ncbi.nlm.nih.gov/pubmed/22860457.

APPENDIX:

Statistical analysis of VAS:

t-Test: Paired Two		
Sample for Means		
	Before	After
Mean	14.23333333	2.866666667
Variance	7.012643678	2.395402299
Observations	30	30
Pearson Correlation	0.075159767	
Hypothesized Mean		
Difference	0	
Df	29	
t Stat	20.99670021	
P(T<=t) one-tail	2.18823E-19	
t Critical one-tail	1.699127027	
P(T<=t) two-tail	4.37647E-19	
t Critical two-tail	2.045229642	

On conducting two-tailed t test, P value of less than 0.0001 was obtained. By conventional criteria, this difference is considered to be extremely statistically significant. The mean of VAS before minus VAS after equals 4.93 with 95% confidence interval. The t stat value is 20.9448, df = 58 and the standard error of difference = 0.236

Statistical analysis of Disease intensity:

t-Test: Paired Two Sample for Means		
	Before	After
Mean	6.8	1.866666667
Variance	0.57931034	1.085057471
Observations	30	30
Pearson Correlation	0.18267086	
Hypothesized Mean		
Difference	0	
Df	29	
t Stat	23.045977	
P(T<=t) one-tail	1.704E-20	
t Critical one-tail	1.69912703	
P(T<=t) two-tail	3.4081E-20	
t Critical two-tail	2.04522964	

On conducting two-tailed t test on disease intensity, P value of less than 0.0001. By conventional criteria, this difference is considered to be extremely statistically significant. The mean of VAS before minus VAS after equals 11.37 with 95% confidence interval and the difference was from 10.25 to 12.49. The t stat value is 23.045, df = 58 and the standard error of difference = 0.560

On carrying out a correlation analysis of VAS and disease intensity, both was found to be positively correlated. I.e.) both values reduced together. Disease intensity reduced along with pain proving the effectiveness of treatment.

QUESTIONNAIRE USED FOR ASSESING THE PATIENT:

STSH 150048

SARADA KRISHNA HOMEOPATHIC MEDICAL COLLEGE AND HOSPITAL

1) PERSONAL DETAILS: Name: Sex: M/F Age:____ Occupation: ______ c/o: _____ Address: Contact number: Educational status: Relationship status: Socioeconomic status: Members of family: 2) GENERAL FEATURES: Height: ____ cms; Hours of sleep: Hours; Nature of work: Weight: Present: kgs; At birth: kgs; Adolescent: kgs Reason for any sudden weight loss/weight gain if present: Incident age: _____ Reason (if present):

Diet:

3	P.	A	T	N	•
•	/ .				٠

Nature	Intensity	Duration	Side R	adiation A Of pain	ggravation An	nelioration

4) Are you facing difficulties in doing any of the following activities?

Head turning	Interaction with others
Dressing	Tour and travel
House hold activities	Reading
Television viewing	Using telephone
Carrying things	Searching things at home and work
Shopping	Ability to concentrate
Relationship with family	

5) Are you happy with your job?	
6) Relationship with colleagues/boss:	
7) How is your stress level at work?	

STSH 150048

SARADA KRISHNA HOMEOPATHIC MEDICAL COLLEGE AND HOSPITAL

SI.No.	Symptoms	1	2	3	4	5	6	7
1	Cervical pain during movement							
2	Referred pain							
3	Neck stiffness							
4	Numbness							
5	Tinging							
6	Weakness							
7	Vertigo							
8	Dizziness							
9	Retro orbital/temporal pain							
10	Sub occipital headache							
11	Restriction of movements							
12	Crepitus audible on neck							

SCORING CRITERIA:

- 0- Absent
- 1- Mild
- 2- Moderate
- 3- Severe

	Master Chart STSH15004														
						S	18H150	JU4							
SI. No	OP No.	Na me	Ag e	S e x	Occu patio n	Prersentin g Complaint s	Р/Н	Diag nosis	Med icine	Pot enc y	VA S		Dise ase Inte nsit y Scor e		Rem arks
		•	•			with Duration			•	•	Bef ore	Af te r	Befo re	Af te r	
1	841 7/10	Mrs .B	55 yrs	F	Hous ewife	cervial region pain extending to both hands,head ache in	Chicku ngunya	Cervi cal Spon dylosi s	Nux vom ica	200	7	2	12	4	Impr oved
						occiput,stif fness of neck, Since 6 months,									
						Movement, < Stooping, <night,< li=""> </night,<>									
						>Pressure, >Warm Applicatio n, <cold< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></cold<>									
2	800/17	Mrs .R	35 yrs	F	Tailor	exposure. cervical region,achi ng pain, stiffness of neck,	Chicke npox	Cervi cal Spon dylosi	Nux vom ica	1M	6	1	9	1	Impr oved
						Since 2 months, < Turning Head, < Flexion,		5							
						< Stooping, < Exertion.									
3	516 9	Mrs .k	45 yrs	F	Baker y	Cervical region, aching pain	NR	Cervi	Nux vom ica	1M	7	2	17	3	Impr oved
					worke r	radiating to arm		Spon dylosi s							

	1		1	T		.:cc	1			I	I	1		1	
						,stiffness of									
				-		neck,				 					
						since 2									
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						Heaviness									
						of nape of									
						neck,									
						Headache									
						in occiput.									
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						in nape			ica						
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						right shoulder,	Pneumo								
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						Pain in									
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				1		Headache.									
5	520	Mrs	32	F	Hous	Cervical	Primary	Cervi	Nux	1M	6	0	14	0	Impr
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6	410 9	Mrs	34	F	Staff	Cervical	NR	Cervi	Nux	1M	7	2	15	4	Impr
	9	.J	yrs		in	region pain (left side)		cal	vom						oved
]			(left side)			ica	1				<u> </u>	

					Publi	Extending		Spon							
					С	to left arm,		dylosi s							
					Firm	Stiffness of neck, Head									
						ache,									
						since 2									
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7	510	Mr.	22	M	Drive	Cervical	chicken	Cervi	Nux	1M	6	1	12	2	Impr
	6	A	yrs		r	region pain(right	pox	cal	vom ica						oved
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8	712	Mrs	32	F	Hous	Vertigo,	Viral	Cervi	Nux	200	8	1	18	2	Impr
	6/13	.Sr	yrs		ewife		fever	cal	vom						oved
						<moving< td=""><td></td><td>Spon</td><td>ica</td><td></td><td></td><td></td><td></td><td></td><td></td></moving<>		Spon	ica						
						head,		dylosi s							
						Cervical .									
						region pain with									
						stiffness of									
						neck,exten ding to									
						arm, Since		1							
						1 week,									
						<stooping,< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></stooping,<>									
						<physical exertion.<="" td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></physical>									
						Weakness	 								
						of body.									
9	231/	Mrs	40	F	Teach	Pain on	NR	Cervi	Nux	200	7	2	12	3	Impr
	13	.P	yrs		er	forehead,a nd cervical		cal	vom ica						oved
						region, Vert		Spon	ica	†					<u> </u>
						igo,		dylosi s							
						since 2									
		1				weeks, <travellin< td=""><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td><td></td><td>1</td></travellin<>					-				1
						g,									
						< During perspiratio									
						n,									
						1 /		1							

						<stooping,< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></stooping,<>									
						<lateral flexion.<="" td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></lateral>									
10	115 96/1 5	Mrs .Pr	46 yrs	F	Hous ewife	Cervical region pain	chicken pox	Cervi cal	Nux vom ica	200	7	1	15	2	Impr oved
						Extending to left shoulder,		Spon dylosi s	ica						
						with numbness and stiffness									
						of neck,									
						years, < Turning									
						Head, >Lying on left side,									
						<weight lifting.<="" td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></weight>									
11	147 49/1 4	Mr. Rj	45 yrs	M	Tappi ng	Pain in shoulder joint,	NR	Cervi cal	Nux vom ica	1M	7	3	14	4	Impr oved
					Rubb er	radiating till thumb(left side),		Spon dylosi s							
						since 1 year,									
						cervical region pain,exten ding									
						to left shoulder, with stiffness									
						of neck, since 1 year,									
		<u> </u>				<night,< td=""><td></td><td></td><td></td><td><u> </u></td><td></td><td></td><td></td><td></td><td></td></night,<>				<u> </u>					
		1		\vdash		>Pressure,				}					
						< Lying on left side,									
						>Warm application									
						Vertigo, since 1 year.									
12	585 6/14	Mrs .L	35 yrs	F	Hous ewife	Cervical pain,exten ding to	Chicku ngunya,	Cervi cal	Nux vom ica	0/3	7	3	15	4	Impr oved

						1 4 4	Chicke	1	1	1	I			1	
						both the		spond							
						arm, with stiffness of	npox	ylosis							
						neck,									
						since 1									
						year,									
						<									
						Movement,									
						<weight< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></weight<>									
						lifting,									
						<physical< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></physical<>									
						exertion,									
						<turning< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></turning<>									
						head on									
						both sides.									
						Headache									
						in frontal									
						region,									
				1		<sun< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></sun<>									
	<u> </u>				<u></u>	exposure,	<u> </u>		<u></u>						
						<talking< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></talking<>									
	<u></u>	L		L		loudly.	<u> </u>		<u>L</u>					L	<u> </u>
13	881	Mrs	42	F	Teach	Pain on	Mumps	Cervi	Nux	1M	7	1	15	1	Impr
	7/15	.AJ	yrs		er	scapular	1	cal	vom						oved
			ľ			region(left			ica						
						side),		Spon							
								dylosi							
								S							
						Pain in									
						cervical									
						region									
						(left									
						side),with									
						stiffness of									
						neck,									
						since 3									
						months,									
						<motion ,<="" td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></motion>									
						<raising< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></raising<>									
						arm.									
				1		Vertigo									
				1		,since 1									
4.4	525	3.7	10	3.5	G. 1	month.	NID		1	13.7			10	<u> </u>	ļ.,
14	525	Mr.	18	M	Stude	Pain in	NR	Cervi	Nux	1M	6	3	12	5	Impr
	5	An	yrs	1	nt	shoulder		cal	vom						oved
-				1		joint,			ica						
				1		extend		Spon							
				1		upto right		dylosi							
				1		arm, with		S	_						\vdash
				1		neck									
-	<u> </u>			1		stiffness,									
						since 5yrs,									
						<writing,< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></writing,<>									
·		 	1	+		<erect< td=""><td></td><td></td><td> </td><td></td><td>1</td><td> </td><td></td><td> </td><td>\vdash</td></erect<>			 		1	 		 	\vdash
						posture,									
				1		<turning< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></turning<>									
				1		head,									
				1		<driving.< td=""><td> </td><td></td><td>1</td><td></td><td></td><td></td><td></td><td></td><td>\vdash</td></driving.<>	 		1						\vdash
						Dirving.									

15	525 4	Mrs .Sh	40 yrs	F	Hous ewife	Cervical region, stitc hing pain	NR	Cervi cal	Nux vom ica	1M	7	3	14	5	Impr oved
						extending upto right arm, with		Spon dylosi s	ica						
						neck stiffness, and		S							
						vertigo,									
						since 10									
						yrs, <morning,< td=""><td></td><td></td><td></td><td></td><td></td><td> </td><td></td><td></td><td></td></morning,<>						 			
					1	<turning< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></turning<>									
						head on both sides,									
						<straining,< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></straining,<>									
						>Warm application									
16	111 61/1 5	Mrs .AP	59 yrs	F	Hous ewife	Cervical region	Chicke npox,	Cervi cal	Nux vom	200	6	3	17	5	Impr oved
	3					pain, extending	known	Spon	ica	1		 			
						to right		dylosi							
						hand, with neck		S				-			
						stiffness,									
						Since 1	hyperte								
						year,	nsive					<u> </u>			
						<neck Movement,</neck 	since 1 yr								
						<abductio n of hand,</abductio 	yı .								
						<lying affected<="" on="" td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></lying>									
						side, >Rest.						1			
						Vertigo(oc						1			
						casionally)									
						Heaviness of head.									
17	503/ 13	Mrs .RB	60 yrs	F	Hous ewife	Cervical region pain and	Abortio n,	Cervi cal	Nux vom ica	200	6	2	12	4	Impr oved
						stiffness,ex	Hystere	Spon	154			1			
						tending to right arm	ctomy,	dylosi s							
						upto elbow joint,	Chicke npox								
						since 2yrs,	прох					1			
						<lying back,<="" on="" td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></lying>									
						<exertion,< td=""><td></td><td></td><td></td><td></td><td></td><td>t</td><td></td><td></td><td></td></exertion,<>						t			
						<turning< td=""><td></td><td></td><td></td><td></td><td></td><td>t</td><td></td><td></td><td></td></turning<>						t			
						head to right,									

						<bathing< th=""><th></th><th></th><th>I</th><th></th><th></th><th></th><th></th><th>Ι</th><th></th></bathing<>			I					Ι	
						in cold									
						water,									
						<stooping,< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></stooping,<>									
						<early< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></early<>									
						morning									
18	106	Mrs	50	F	Cashe	Cervical	Chicke	Cervi	Nux	200	6	0	12	0	Impr
	99/1	.SE	yrs		wnut	region	npox	cal	vom						oved
	3					pain,right		-	ica						
					factor	side of		Spon							
					У	neck,exten ding to		dylosi							
				1	worke	shoulder		S							
					r	joint,stiffn									
					1	ess of									
						neck,									
						since 3									
						months,									
						<stooping,< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></stooping,<>									
						<turning< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></turning<>									
						head.]	<u> </u>						
19	872	Mr.	70	M	Fisher	Cervical	Chicke	Cervi	Nux	200	6	2	12	3	Impr
	9/15	RA	yrs		man	region	npox,	cal	vom						oved
						pain,	G1 1 1	-	ica						
						extending	Chicku	Spon							
						upto left arm,	ngunya.	dylosi							
						through		S							
						shoulder									
						joint,									
						stiffness									
						of neck									
						,since 2									
						months,									
						<raising< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></raising<>									
						arm,									
						<motion ,<="" td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></motion>									
						<lying on<="" td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></lying>									
						affected									
						side,			-						
				1		<night,< td=""><td></td><td>ļ</td><td><u> </u></td><td></td><td></td><td><u> </u></td><td></td><td></td><td></td></night,<>		ļ	<u> </u>			<u> </u>			
						>Pressure.		<u>L</u>	<u>L</u>						<u> </u>
20	196	Mr.	53	M	Fisher	Cervical	Malaria	Cervi	Nux	200	8	3	15	4	Impr
	8/16	L	yrs		man	region,	,	cal	vom						oved
						electric			ica						
}			1	-		like	II.	Conne	1	<u> </u>		}		-	
						pain with numbness	Hernia- Surgery	Spon dylosi							
				1		extending,	Surgery	S							
				1		to arm	done.	J	1						
						(right	done.								
						side),									
						weakness									
						of									
						arms,neck									
						stiffness,			1			ļ			
						Since 1									
]	<u> </u>				year,			<u> </u>						

		1					1								
						< weight									
						lifting, < Sitting,									
						< Lying on affected side,									
						> Lying									
						on back,									
						> Rest.									
21	727	Mrs	37	F	Banke	Cervical	Chicke	Cervi	Nux	200	6	0	12	0	Impr
	1/9	.Su	yrs		r	region, aching pain,	npox,	cal	vom	200	Ü				oved
						extends to	Typhoi	Spon							
						left arm,	d fever,	dylosi s							
						since 2 years,	Thyroid ectomy.								
						<night,< td=""><td>cctomy.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></night,<>	cctomy.								
						< Sitting,									
						> Lying									
						down. Vertigo									
						and									
						tendency									
						to fall									
						forward,									
						< Morning,									
						<									
						Travelling. Headche.									
22	579	Mr.	44	M	Busin	Cervical	NR	Cervi	Nux	200	6	1	12	2	Impr
22	5/13	Bu	yrs	IVI	ess	region	INK	cal	vom	200	O	1	12		oved
	0,13	D	J15		CBB	pain,			ica						ovea
						extends									
						to left		spond							
						hand,neck stiffness,		ylosis							
						since 2									
						years, < Exertion,									
						<									
						Stooping,									
						< Cold,									
						< Moving Head.									
						Headache									
						from left to right									
						side,extend									
						ing to back,									
						since 2									
						years,									
						< Sun Exposure,									
							•							•	

						<									
						Persperatio									
						n,									
						> Pressure,									
						> Lying									
	0.1.1	3.5		_		down.	3.5			• • • •			- 10		_
23	914 3/13	Mrs	60	F	Hous ewife	Cerviacl	Measles	Cervi	Nux	200	8	2	18	3	Impr oved
	3/13	.T	yrs		ewile	region pain,		cal	vom ica						oved
						extends			ica						
						to right		Spon							
						upper		dylosi							
						extremity,n		s							
						eck									
						stiffness,									
						Numbness									
						in fingers, since 3									
						years,									
						< Cold									
						bathing,									
						<					-				
						Stooping.									
						Vertigo, with									
						heaviness									
						of head,									
						< Sitting.									
24	356	Mrs	70	F	Hous	Cervical	Chicke	Cervi	Nux	200	7	4	17	5	Impr
	4/13	.Sa	yrs		ewife	region	npox	cal	vom						oved
						pain,			ica						
						extends		~							
						from nape of neck		Spon							
						towards		dylosi s							
						both upper		3							
						extermities									
						,									
						<turning< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></turning<>									
						in bed,									
						< Exertion,									
ļ						< Motion,									
						< Holding									
				<u> </u>		things.									
						Numbness of upper									
						extermities									
L				L		,					L_			L	
						< Rainy									
ļ				<u> </u>		weather,						ļ			
						Vertigo,									
						< Lying,									
						< Raising									
						from lying									
				<u> </u>		posture. Heaviness									
						of									
	1	1	<u> </u>			91	1	1						<u> </u>	

						head,Head									
						ache, Since 2									
						years.									
25	103	Mrs	35	F	Hous	Headache,	Bronchi	Cervi	Nux	200	7	1	15	1	Impr
	0/9	.Sw	yrs		ewife		tis	cal	vom						oved
			0			< Sun		Cnon	ica						
						< Sun Exposure,		Spon dylosi							
						Exposure,		S							
						<									
						Travelling.									
						> After sleep.									
						Vertigo,									
						< Night,									
						< Raising									
						from lying									
						posture.									
						Cervical									
						region pain(left									
						side),									
						stiffness of									
						neck,									
						since 2 weeks,									
						< <									
						Stooping,									
						<pressure,< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></pressure,<>									
						< Lying on									
						affected									
						side,									
						Movement									
						of head.									
26	119 76/1	Mr. Ct	36	M		Cervical	Jaundic	Cervi	Nux	200	6	2	12	4	Impr oved
	76/1 4	Ct	yrs		е	region, aching	e	cal	vom ica						oved
						pain,			ica						
						(right		Spon							
						side),stiffn		dylosi							
						ess of neck,		S							
						since 1									
						year,									
						< Flexion,									
						< Turning									
		<u> </u>	<u> </u>	<u> </u>		head,	 					-			
						< Stooping.									
27	115	Mrs	46	F	Hous	Cervical	Chicke	Cervi	Nux	200	8	2	15	3	Impr
	96/1	.P	yrs		ewife	region	npox	cal	vom						oved
	5					pain, extends			ica						
						to		Spon							
						shoulder(le		dylosi							
						ft side),		S							

		I	1			.:cc c	1					1		1	
						stiffness of									
				1		neck,									
						Pain with									
						Numbness									
						with									
						tingling									
						sensation,S									
						ince 5									
						years,									
						< Turning									
						the head,									
						<lying on<="" td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></lying>									
						left side+,									
						< Weight									
						lifting.									
28	712	Mrs	32	F	Hous	vertigo,	Pneumo	Cervi	Nux	200	8	1	18	2	Impr
	6/13	.Sre	yrs		ewife	, , , ,	nia,	cal	vom						oved
	0, 20)				,		ica						
						< Moving	Chicku	Spon	1000						
						head.	ngunya	dylosi							
						Troug.	11841174	S							
						Headache		5							
						in vertex,									
						< Sun						1			
						Exposure,									
				+		< Morning.									
						Cervical									
						region									
						pain,with									
						stiffness									
						Since 1									
						week,									
						<									
						Stooping+									
						< Exertion.									
				1		Weakness									
						of body.									
29	230	Mrs	35	F	Hous	Cervical	Chicke	Cervi	Nux	200	7	3	14	4	Impr
	9/16	.M	yrs	1	ewife	region	npox,	cal	vom	200	,		17	7	oved
	<i>)/</i> 10	.1V1	yıs		CWIIC	pain,exten	прох,	Cai	ica						Oved
						ds			ica						
—			 	+		arm, with	Chicke	Spon				1	1	1	
						stiffness of	nguniya	dylosi				1			
						neck,	ngumya	S				1			
	}	1	1	1	}	Vertigo,		5	1			1	1	1	
						since 1						1			
												1			
				+		year,						1	1		
						< Weight						1			
		1	-	1		lifting,		 				1		}	
						> Lying						1			
						down on						1			
				1		supine									
				1-		position,		.				1	ļ	<u> </u>	
<u> </u>			<u></u>			< Exertion,		<u> </u>	<u> </u>						
						> Oil									
						massage.									

30	168/ 16	Mrs .Na	55 yrs	F	Hous ewife	Cervical region pain, extends	NR	Cervi cal	Nux vom ica	200	8	2	21	2	Impr oved
						from right shoulder joint till		Spon dylosi s							
						thumb,Pain with numbness and									
						tingling sensation in thumb,									
						Vertigo, stiffness of neck,									
						since 3 days,									
						<lying on="" right="" side,<="" td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></lying>									
						< Turning head to left side,									
						<weight lifting.<="" td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></weight>									