



## ORIGINAL RESEARCH PAPER

## Physiotherapy

### PSYCHOLOGICAL EVALUATION IN CERVICAL SPONDYLOSIS

**KEY WORDS:** Radiculopathy, Myelopathy, Brachial Neuralgia, Vertebrobasilar insufficiency, Cattell's Questionnaire Test, STEN score.

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#### ABSTRACT

Seventy-five patients presenting symptoms and signs of cervical spondylosis were evaluated psychologically. The condition, which presents with symptom complexes of pain, restriction of neck movements, radiculopathy, and myelopathy, is mostly treated conservatively by physical methods. In the present study, 88.6% patients of cervical spondylosis were found to have one or more psychological disturbances which were the cause of patient's symptoms or the effect of the symptoms. In both the situation, it seemed appropriate to recognise and treat the disturbed psychological status of the patient in addition to physical methods of treatment.

#### INTRODUCTION

Cervical spondylosis is a common progressive degenerative disease of intervertebral disc leading to change in the surrounding structures especially bones and meninges; often associated with brachial neuralgia, cord compression, headache and Vertebrobasilar insufficiency. It is clinically diagnosed by presence of pain in neck, restriction of neck movements and signs of root and cord compression. The condition is usually treated by physical methods like various forms of heat therapy, cervical traction and neck exercises, coupled with anti-inflammatory analgesic drugs. Such conservative treatment may not succeed in alleviating the patient's symptoms completely unless the disturbed psychological status, which is commonly present in such patient's is properly recognised and treated. In the present study, patients of cervical spondylosis have been evaluated to determine the significance of psychological factors in its symptomatology.

#### MATERIAL AND METHODS

75 patients presenting with symptom complex of cervical spondylosis were subjected to psychological test and results were compared with those of 50 normal persons. Besides detailed clinical examinations spondylitic patient was subjected to radiological examination and antero-posterior, lateral, right and left oblique views were taken to detect any organic lesion which can be held responsible for the patient's symptoms.

To study the psychological aspects of the disease, both normal and ailing person were subjected to Cattell's questionnaire test. It provides information about sixteen personality factors which differ markedly from one individual to other and give idea about the total personality of an individual. The factors assessed are: a) Schizothymia (outgoing), b) Intelligence, c) Emotional Stability, d) Degree of Dominance, e) Mood f) Super Ego Strength, g) Boldness, h) Sensitiveness, i) Degree of Suspicion, j) Practical, k) Shrewdness, l) Worry, m) Conservatism, n) Dependence, o) Self Image, p) Tension The test comprised of questions pertaining to the above mentioned factors. Three alternative answers of each question were provided and patients was asked to mark the most appropriate answer. Form in Hindi was used. In literate persons, test was first explained verbally and then they were asked to answer the question in 40 minutes though no absolute time limit was kept. In cases of illiterate and bed-ridden patients, test was given verbally and examiner himself marked the subject's response appropriately on the answer sheet held by him. Scores for each factor were converted into STEN score i.e. the scale in which score between five and six is average and rest of the scores are interpreted according to the manual. For the conversion of STEN score and interpretation, help of standardised manual was taken which measured it in an objective manner.

#### OBSERVATIONS

Seventy-five patients of cervical spondylosis were evaluated psychologically and result were compared with those of 50 normal persons. Age, Sex, Marital Status and occupation were similar in both groups. Incidence of clinical cervical spondylosis was more in females especially housewives and sedentary patients. There was a gradual decrease in incidence after long duration.

The main symptoms were pain in neck and shoulder (83% each), pain in upper limb (73.6%) and restriction of movement of neck (64.6%). One case had difficulty in swallowing mainly for solids. On clinical examination restriction of neck movements was present in 92.5% cases, followed by spasm of muscles and tenderness in 75.8% cases.

56.5% cases had radiological evidence of spondylosis in form of narrowing of disc space (C5-6 in 51.1% cases and C5-7 in 28.8% cases) along with osteoarthritis of diarthrodial joints of cervical spine and narrowing of intervertebral foramina. Remaining 43.5% cases did not show any evidence radiologically which could account for their symptom complex.

Comparison of seventy-five with fifty normal persons revealed that 88.6% patients of cervical spondylosis were emotionally unstable, dissatisfied from their occupation, tense, anxious, worried and unable to keep contact with their surroundings. Although there was much difference in the psychological status of the two groups, but it was not definite whether these findings were the cause of symptoms or the effect of symptoms.

Further comparison of 56.5% cases of cervical spondylosis who had radiological evidence of disease with the normal persons showed that in addition to the emotional instability, dissatisfaction from occupation, poor practical attitude and such patients were more shrewd, sophisticated and polished.

A comparison of 43.5% cases who had no radiological evidence of disease with the normal persons, showed that these patients too were emotionally unstable, impractical and less bold, worried individuals with a high degree of dependence on others.

Comparison of the psychological status of the patients with radiological changes and those without them revealed that there was no significant difference except one or two personality traits.

#### DISCUSSION

In the present series seventy-five patients of cervical spondylosis were studied clinically, radiologically and psychological to ascertain the factors responsible for their

symptoms. Though 56.5% cases showed radiological evidence of degenerative changes in cervical spine, but severity of their symptoms could not be well co-related with their radiological picture. Also, symptoms in 43.5% cases, in whom no radiological evidence was there, could not be explained, therefore, an attempt was made to determine some factor which may be responsible for their symptoms. However, these patients were subjected to psychological disturbances and to understand them more clearly, results were compared with the normal individuals.

The evaluation revealed psychological disturbances of neurotic tendency in 88.6% cases of cervical spondylosis and there was a definite indication that these were responsible for the symptoms.

## CONCLUSION

The mind is not created independently of the body but it is very definitely linked with it, when feelings and thoughts are not expressed when feelings and thoughts are not expressed by words or actions, they find expressed through some organ or organ system. Thus, headache beginning in the back of head, referred to neck and sometimes extending down to the back or into shoulders often represents tension expressed in neuromuscular system. Anxiety which can make its effects in any part of the body, may manifest as headache and pain in neck, thus simulating cervical spondylosis.

Psychological evaluation of cervical spondylosis patient should be done to determine any psychological disturbances understanding and appropriate treatment of such disturbances coupled with the conventional physical methods of treatment in cervical spondylosis can alleviate the symptoms and even the most resistant cases.

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