

Physiotherapy Management of Thoracic Hyperkyphosis with Chronic Neck Pain in A 50-Year-Old Male Carpenter: A Case Report

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ABSTRACT

Background: Thoracic hyperkyphosis may coexist with neck pain, shoulder-girdle muscle imbalance, and limitations in movement and daily activity. Physiotherapy may be used to address pain, mobility, muscle performance, and postural control.

Case description: A 50-year-old male carpenter presented with a three-year history of headache and neck pain, bilateral upper-trapezius pain greater on the right, and pain extending toward the right scapular and upper-chest regions. Pain was reported as 6/10 at presentation in the initial summary and 7/10 during activity in the clinical notes. Examination notes described exaggerated thoracic kyphosis, rounded/protracted shoulders, pectoral and upper-trapezius tightness, weakness of the lower trapezius and cervical flexors, and restricted cervical movement. The X-ray report was recorded as showing a Cobb angle greater than 45°. Intervention: The documented programme included breathing exercises, stretching, scapular and cervical postural exercises, spinal and abdominal extensor strengthening, thoracic mobilisation, and interferential

therapy for pain relief. Outcomes: After one month, neck pain was recorded as 2/10; cervical flexor strength was graded 3/5 and extensor strength 4/5 on the Medical Research Council scale. The patient was reported to have resumed usual work and daily activities without pain-related difficulty.

Conclusion: This case describes improvement in reported pain and function following a multimodal physiotherapy programme. Because this is a single case with incomplete standardised outcome and treatment-dose information, the response cannot be attributed to any individual intervention and should be interpreted cautiously.

Keywords: thoracic hyperkyphosis; kyphosis; physiotherapy; neck pain; posture; case report

INTRODUCTION

Kyphosis is the posterior convex curvature of the thoracic spine; a degree of thoracic kyphosis is normal, while an excessive curve is commonly described as hyperkyphosis. Its cause may be postural,

degenerative, structural, or related to vertebral disease, and these categories should not be assumed to be interchangeable. Age-related hyperkyphosis has been associated with pain, physical-performance limitations, and adverse health outcomes, although the clinical implications vary between individuals [1]. Assessment should therefore consider symptoms, spinal mobility, muscle performance, functional limitations, and possible underlying structural or medical causes.

Physiotherapy management may include education, postural and functional exercise, strengthening, flexibility work, mobility exercises, and symptom-modulating interventions selected according to the patient's presentation. A case report can provide a detailed description of an individual clinical course, but it cannot establish treatment efficacy. This report describes the presentation and one-month outcome of a male carpenter with documented thoracic hyperkyphosis and chronic neck pain who received a multimodal physiotherapy programme.

CASE PRESENTATION

Patient information and history

A 50-year-old male carpenter attended physiotherapy with headache and neck pain reported to have persisted for three years. He described bilateral upper-trapezius pain, more severe on the right, extending toward the right scapular and upper-chest regions. The pain was characterised as a persistent ache. The initial abstract recorded pain intensity as 6/10 on the Numeric Pain Rating Scale (NPRS), while the clinical notes recorded 7/10 during activity; the precise assessment conditions should be clarified before submission.

The history supplied in the case notes states that approximately 17 years earlier, after recovery from dengue, the patient experienced low-back pain and obtained relief after medication prescribed at a local hospital. A recurrence of low-back pain during movement was reported five to six years later and was treated with medication,

again with reported relief. Approximately seven years after that episode, he developed pain and difficulty moving his neck. Medication and one chiropractic session did not provide relief, after which he attended Dr. D. Y. Patil Ayurveda Hospital and began physiotherapy. Exact dates, prior diagnoses, medication details, and relevant comorbidities were not available in the source notes.

Clinical examination

The documented subjective findings were low-back pain during mobility, neck pain during cervical movement, and functional limitations in mobility. The physical examination notes described excessive thoracic kyphosis, rounded and protracted shoulders, pectoral and upper-trapezius tightness, and weakness of the lower trapezius and cervical flexors. Shoulder range of motion was described as maintained in all planes, whereas cervical movement was restricted, including flexion, extension, and lateral flexion. Quantitative cervical range-of-motion values, neurological findings, red-flag screening, and a detailed functional assessment were not supplied and should be added if they were assessed.

Imaging

The case notes state that an X-ray showed a Cobb angle greater than 45°. The radiographic report, measurement method, spinal levels used for the measurement, and whether the curvature was considered postural or structural were not supplied. These details should be verified from the original imaging report before publication.

Clinical impression

The documented findings were consistent with thoracic hyperkyphosis accompanied by chronic neck pain and cervical movement restriction. The available information is insufficient to determine the aetiology of the kyphosis or to exclude structural, neurological, or other medical contributors. The report should not label the

condition as purely postural unless this was established clinically.

PHYSIOTHERAPY INTERVENTION

The patient received a multimodal physiotherapy programme. The following

details are reproduced from the available treatment notes; the exact frequency of visits, progression criteria, adherence, and total number of sessions were not recorded.

Intervention	Documented dosage / method	Intended clinical target
Breathing exercises	10 repetitions, 2 sets	Thoracic/costovertebral mobility
Stretching	Pectoral/anterior thoracic muscles and hamstrings; 2 sets, 10 repetitions, 30-second hold; notes state 'for 5 days'	Flexibility and anterior-chain mobility
Scapular and cervical exercises	Prone scapular retractions; chin retractions; shoulder elevation with external rotation; 2 Sets, 10 repetitions for 5 days	Scapular control and postural muscle performance
Postural correction	Corrective posture practice in supine and prone positions using a Swiss ball; 1 set, 5 days	Postural awareness and control
Spinal and abdominal extensor strengthening	Recorded as 5-kg resistance, 7-second hold and 7-second rest, 10 repetitions; 1 set, 3 days	Trunk extensor and abdominal muscle performance
Thoracic mobilisation	Quadruped-position segmental mobilisation; facet mobilisation combined with active extension, lateral bending, and rotation	Thoracic mobility
Interferential therapy (IFT)	20 minutes; '4 polar'; carrier frequency 50Hz, beat frequency 80-100Hz, intensity 7-10.	Short-term symptom relief / pain modulation

FOLLOWUP AND OUTCOMES

At the one-month follow-up, neck pain was recorded as 2/10 on the NPRS. Cervical flexor strength was documented as 3/5 and cervical extensor strength as 4/5 on the Medical Research Council scale. The notes stated that the patient could perform daily

activities and return to his usual carpentry work without pain-related difficulty. No post-treatment Cobb angle, measured cervical range of motion, validated disability score, adverse-event record, or longer-term follow-up was supplied.

Outcome	Baseline (as documented)	One-month follow-up
Neck pain (NPRS)	6/10 in abstract; 7/10 during activity in clinical notes	2/10
Cervical flexor strength (MRC)	Not reported	3/5
Cervical extensor strength (MRC)	Not reported	4/5
Daily/work function	Mobility-related limitations reported	Reported return to usual daily activities and work without pain-related difficulty
Cobb angle	X-ray reported as >45°	Not reported

This case describes a one-month clinical course in a 50-year-old carpenter with reported thoracic hyperkyphosis, chronic neck pain, cervical movement restriction, and shoulder-girdle muscle imbalance. The recorded NPRS score decreased to 2/10 at follow-up, and the patient was reported to have resumed usual work and daily activities. These changes are clinically

encouraging for this individual, but the inconsistent baseline pain scores and absence of a validated disability measure limit the precision with which the change can be interpreted.

The treatment programme combined breathing exercises, stretching, scapular and cervical exercises, postural practice, trunk strengthening, thoracic mobilisation, and

interferential therapy. Because multiple components were delivered together and there was no comparison condition, it is not possible to identify which component contributed to the reported change. The report also does not establish that the thoracic curvature itself reduced, because a follow-up Cobb angle was not recorded.

The term 'hunchback' is colloquial and should be avoided in clinical descriptions except when explaining the title to a general audience. More importantly, kyphosis may have different underlying causes. The clinical record should clarify whether the curvature was flexible or fixed, whether imaging or medical assessment identified a structural cause, and whether neurological or other warning signs were screened. Exercise and manual techniques should be individualised to the diagnosis, symptom response, comorbidities, and patient tolerance.

The case has several reporting limitations: a discrepancy in baseline NPRS values; incomplete quantitative range-of-motion and neurological examination data; limited detail on the intervention frequency and progression; no validated neck-disability or functional outcome measure; no reported adverse-event monitoring; and no longer-term follow-up. These limitations should be acknowledged rather than resolved by estimating or inventing values. Future case documentation should follow the CARE case-report guidance, including a timeline, diagnostic reasoning, intervention details, patient perspective where available, and informed consent for publication [2].

CONCLUSION

In this case, a multimodal physiotherapy programme was followed by a reduction in recorded neck pain from a documented baseline of 6–7/10 to 2/10 after one month

and a reported return to usual daily and work activities. The findings are descriptive and cannot demonstrate causality or confirm structural correction of the thoracic curve. Clearer diagnostic classification, consistent baseline measures, reproducible treatment details, validated functional outcomes, adverse-event documentation, and longer follow-up are needed to strengthen the clinical report.

Declaration by Authors

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