

A SYSTEMATIC REVIEW ON NATUROPATHY VERSUS ALLOPATHY IN TREATING SCIATICA AND LUMBAR SPONDYLOSIS

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Abstract

Background: Allopathy interventions are prescribed as first-line treatment for people with sciatica; however, their effectiveness remains controversial. The purpose of this systematic review was to establish the effectiveness of naturopathy in comparison with allopathy. **Materials and Methods:** In this systematic review databases like MEDLINE, EMBASE, CINAHL, and Psychinfo were searched for publications up to 30th December 2023. Free text and thesaurus terms are used to maximize the results. The grey literature was searched in the health management information consortium database by using the terms: back pain, sciatica, satisfaction, experience, and quality. **Result:** Our study yielded 5548 records, of which 1876 were duplicates. From 54 publications, 34 trials were included; 20 peer-reviewed journal articles. The number of participants ranged from 34 to 420 with a mean of 110. A total of 5233 participants were included out of which 1748 were males and 3485 were females. According to the data available from trials, the mean pain severity was reported in 25 trials as 4.8 (SD 1.9) to 8.0 (SD 1.8) on an 11-point scale. **Conclusion:** Based on the available data, there is adequate evidence to make clinical recommendations on the effectiveness of naturopathy in treating sciatica and lumbar spondylosis.

INTRODUCTION

Sciatica syndrome with a specific diagnosis accounts Percent of cases which is caused by herniated discs associated with nerve root compression The prevalence rate of sciatica ranges from 1.2% to 43% several risk factors are connected with the incidence of sciatica and its development include smoking, obesity, occupational factors, health status, age, gender and social classes.^[1] In an average of 85-90% of cases, a herniated disc causes lumbar nerve root compression or inflammation. As per Chinese medicine, sciatica belongs to the Gallbladder Meridian of the foot shaoyang (GB) the bladder meridian of the foot Taiyang (BL), and the Yanglinquan (GB 34) and Huantiao (GB 30).^[2] Spondylosis is a degenerative condition that affects disks, vertebral bodies, and their associated joints of the lumbar spine. It is in another way described as a degeneration of the lumbar vertebrae. The condition of spondylosis in the zygapophysial joints can be termed facet syndrome.^[3] It connects various pathologies that include spinal stenosis, degenerative spondylolisthesis, osteoarthritis, aging trauma, and daily use of intervertebral discs, the vertebrae, and the associated joints. The lumbar region is the most affected due to exposure to mechanical stress.^[4]

Lumbar spondylosis is a complicated diagnosis with degenerative changes noted on radiographs which are common among all ages making it challenging. It is more prevalent in the age group of 45-64 years. Some degenerative changes are seen in young individuals without trauma. 10% of women between 20-29 display disk degeneration. Despite being common in those over 40, lumbar spondylosis appears in 3% of 20-29 years old.^[5]

The etiology of spondylosis includes lower back pain which is an important clinical, social, economic, and public health problem that affects the population globally. It can be a cascade of anatomical changes in the spine that lead to more degenerative changes in the structure of the spine.^[6]

Guidelines recommend a stepwise model of treatment for sciatica and lumbar spondylosis initiating with naturopathy treatments like acupuncture, hydrotherapy, and wax therapy then progressing towards allopathy treatments that include pharmacological and interventional treatment if the pain is refractory. In certain instances, if naturopathy treatment is not effective, allopathy can be considered with symptoms. However, evidence supporting naturopathy for treating sciatica and lumbar spondylosis is uncertain.^[7]

Recent reviews on this topic have various shortcomings as they collected data from heterogeneous populations that have varied clinical courses and require different procedures.^[8-13] A nuanced interpretation of the outcomes of naturopathy over allopathy is undetermined and warrants a comprehensive update.^[14-21] Therefore, the objective of this systematic review was to investigate the effectiveness, efficacy, and safety of naturopathy compared with allopathy in people with sciatica and lumbar spondylosis.

MATERIALS AND METHODS

Databases like MEDLINE, EMBASE, CINAHL, and Psycinfo were searched for publications up to 30th December 2023. Free text and thesaurus terms are used to maximize the results. The grey literature was searched in the health management information consortium database by using the terms: back pain, sciatica, satisfaction, experience, and quality. Both reviews were independently screened for titles, abstracts, and eligibility. The references of all the retrieved articles were screened and disagreements were resolved by having a discussion.

Eligibility

Studies with patients with Sciatica and Lumbar Spondylosis of any duration were included. Studies of Patients with diagnosis and management were noted. Health care given to patients by naturopathy and allopathy was considered. The study took a qualitative methodology by including solely qualitative studies: mixed method studies both quantitative and qualitative and questionnaire surveys by adopting open questions to collect and interpret data qualitatively and qualitative studies which were consistent to or imbedded in trials or observational studies. Reported outcomes were noted. Studies that report on rehabilitation programs that had no element of diagnosis or management were excluded. Self-care

obtained reports from other sources other than health care practitioners like self-help associations were excluded.

Method of synthesis

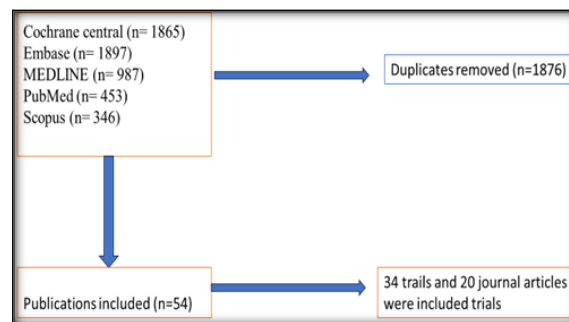
We grouped the studies by treatment methods. Then naturopathy treatment is compared with allopathy. We pooled data and reported outcomes as mean difference and 95% confidence intervals and reported outcomes as risk ratios and 95% confidence intervals.

Data collection and analysis

Each article was analyzed separately by two reviewers. Each portion of text pertinent to the research question was assigned an initial code, close to the original thus providing premature interpretation.

RESULTS

Our study yielded 5548 records, of which 1876 were duplicates. From 54 publications, 34 trials were included; 20 peer-reviewed journal articles.



Characteristics of eligible studies

The number of participants ranged from 34 to 420 with a mean of 110. A total of 5233 participants were included out of which 1748 were males and 3485 were females. According to the data available from trials, the mean pain severity was reported in 25 trials as 4.8 (SD 1.9) to 8.0 (SD 1.8) on an 11-point scale

Table 1: Naturopathy treatment interventions

Study Year Country	Number of participants	Intervention	Outcome
Weber et al 1983, ^[22]	126	Wax therapy/rehabilitation	Reduced pain
Chen et al, ^[23] 2007	30	Acupuncture	Reduced sciatic and low back pain
Luijsterburg et al, ^[24] 2008 Netherland	N=135	Exercise therapy	Pain short 3 (2.67)
Konstantinovic et al, ^[25] 2010 Serbia	364	Active low-level laser therapy	The pain was reduced with a short-rate median of 34
Zhang 2012, ^[26]	145	Acupuncture	Effective against sciatic pain
Ye et al 2015, ^[27]	31	Electroacupuncture	Effective treatment for sciatica
Ferreira et al, ^[28] 2016 Brazil	60	Neurodynamic treatment	The pain was reduced with a rate of 3.7
Abou-Elroos et al, ^[29] 2017	60	Soft tissue massage; electrotherapy; static exercise for abdominal muscles, back muscles and hip extensors	Pain is reduced
Bailey et al, ^[30] 2020-2021	64	Physiotherapy	Relieve pain
Fritz et al, ^[31] 2021 USA	220	Physical therapy	The low back pain was reduced with a rate of 2.6

As shown in the table, naturopathy treatment interventions yielded good results and proved a

statement of naturopathy as an advanced technique as allopathy.

DISCUSSION

We aimed to summarize the effects of various naturopathy interventions in treating lumbar spondylosis and sciatic pain. From a total of 36 trials and 20 journal articles, acupuncture, physiotherapy, and other small interventions were effective in reducing sciatic and lumbar spondylosis. The effects were better in patients with acute and subacute pain than in patients with chronic conditions.^[32]

We followed the steps recommended by the Cochrane Handbook of Systemic Reviews and protocol. Almost most of the included studies have a low risk of bias, and the quality of evidence was low in most comparisons., mainly due to a low number of trials. The level of recommendation (GRADE) for many comparisons was low which made it difficult to arrive at a good recommendation for the systematic use of Sciatic and lumbar spondylosis.^[33]

Apart from the possibility that physiotherapy, acupuncture, and hydrotherapy all are effective in treating sciatica with multiple possible reasons for the lack of evidence. The UK NICE guidelines find no evidence supporting the use of corsets or belts but these were a core component in another trial conducted before the publication of these guidelines. Among others, physiotherapy interventions are still highly heterogeneous and remain unclear in several studies.^[34] The Bailey study left physiotherapy interventions at the discretion of the treating clinician and another study by Peul study refers people to physiotherapy only if they are fearful of movement leaving uncertainty about the participants in those trials that had physiotherapy treatment.^[35]

A further challenge to progress in the treatment is the proper diagnosis of sciatica itself. There is no agreed definition for sciatica reflected in the wide range of definitions used in clinical trials.^[36]

The broad term 'sciatica' comprises radiculopathy, radicular pain, or somatic referred pain. The varying patient populations bring clinical heterogeneity to most meta-analyses.^[37,38] Unfortunately, the high heterogeneity among studies minimizes the confidence in our results.^[39] Together with previous systematic reviews with inconclusive findings, our results threw light on the question of naturopathy or allopathy in treating sciatica.

CONCLUSION

In summary, for patients with clinically diagnosed sciatica and lumbar spondylosis, naturopathy treatments like acupuncture, hydrotherapy, and exercise are recommendations on their effectiveness in reducing pain or disability. The lack of evidence may be due to several factors including incomplete trial reporting and trials lacking high methodological quality.

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