

# Cervicogenic Headache and Physiotherapy: A Systematic Review of Treatment Modalities

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## ABSTRACT

**Introduction:** A common, but frequently misdiagnosed, condition known as Cervicogenic Headache (CGH) is characterised by pain radiating from the cervical spine to the head. CGH can significantly impact quality of life, leading to disability and reduced productivity. It also provides information regarding the nature of CGH. External pressure on the neck and movements of the neck, such as extension, rotation, or lateral flexion, may trigger the headache, which may then spread to the ipsilateral orbito-frontal-temporal or facial regions. Pain is referred from cervical structures due to the convergence of sensory pathways in the trigeminal-cervical complex. Dysfunction or irritation of cervical joints, muscles, or nerves can contribute to CGH symptoms. Physical therapy targets the cervical spine, which is often involved in CGHs. Techniques aim to improve joint function, reduce muscle tension, and enhance cervical stability. Therapy helps to restore normal cervical function, improve posture, and enhance overall quality of life. Patients also learn about self-management strategies, ergonomic adjustments, and lifestyle modifications to prevent exacerbation. This structured background provides a comprehensive overview of CGHs and the role of physical therapy in their management and effectiveness.

**Aim:** This article aims to provide a thorough overview of CGHs, covering a range of physical therapy treatments.

**Materials and Methods:** In the present systematic review, a literature search was conducted to find pertinent studies

and reviews on cervicogenic headache, using the PubMed database. Key search terms included “cervicogenic headache” and “physiotherapy.” Only English-language research published between 2005 and 2024 were included in the search. The platform “RAYYAN” was used for the screening of articles and provides information regarding duplicate and unresolved articles.

**Results:** In the identification phase, a search of databases and registers yielded 40 potentially relevant records. During the screening process, two duplicates were removed, leaving 38 records for further evaluation. Of these, 21 were excluded for reasons such as irrelevance to the research question or differing study types. The remaining 17 records underwent assessment based on predefined inclusion and exclusion criteria. Ultimately, 11 studies met the eligibility requirements and were included in the systematic review. Articles with titles related to CGH and physiotherapy were included. The subjects were children, as well as male and female adults. A Clinical Trial (CT) and Randomised Controlled Trial (RCT) study design including 13 various interventions published from 2005 to 2024 were selected. All studies were written in English and had free full-text availability.

**Conclusion:** Given the complexity of cervicogenic headache, multiple modalities must be used in diagnosis and treatment. To improve patient outcomes and optimise therapeutic techniques, further research is required.

**Keywords:** Head and neck pain management, Physical therapy, Rehabilitation

## INTRODUCTION

Cervicogenic Headache is a unilateral pain that originates in the neck and head, primarily affecting the bony structures or soft tissues of the affected area. It is chronic and usually begins with neck movement and a reduced range of motion. The various physiotherapy treatments include stretching, strengthening, massages, heat therapy, patient education, yoga, meditation, and exercises. Symptoms of CGH include: pain that is unilateral and does not shift to the other side; pain that originates in the neck and radiates to the occipital, temporal, frontal, or orbital areas; pain that ranges from moderate to extremely intense; episode length that varies; pain that may be continuous or sporadic; a vague discomfort in the shoulder region; discomfort that is typically provoked or intensified by specific activities; and the presence of nausea [1]. Currently, corticoid Pulse Radiofrequency (PRF) therapy, nerve block therapy, non-steroidal anti-inflammatory medications, acupuncture, rehabilitation, and other therapies are the main conservative treatments for CGH [2].

Traditional Chinese medicine therapy, which includes acupuncture and massage, has been the subject of extensive research in the field of treating this condition due to its numerous benefits. These benefits include the ability to ease adhesions, alleviate muscle spasms effectively, lessen discomfort and localised pressure, and produce

negligible adverse effects [2]. The upper cervical spinal cord contains the trigeminocervical nucleus, which is believed to be the location where sensory fibres from the upper cervical roots connect with sensory fibres in the trigeminal nerve's descending tract [3]. Primary headaches, which include migraine, tension-type headaches, and trigeminal autonomic cephalalgias, do not stem from an underlying medical condition. In contrast, secondary headaches arise shortly after a specific disorder known to cause headaches, such as those linked to head trauma or neck injuries. CGHs are the most common form of secondary headaches, while tension-type headaches and migraines are the most prevalent primary headaches [4].

Small secondary headaches that originate in the upper cervical spine have been noted. However, a growing body of evidence highlights the benefits of Pulsed Radiofrequency (PRF) surgery and RF neurotomy in alleviating migraines caused by cervical spine issues [5]. Headaches have been linked to trigger points in the posterior neck muscles, specifically the splenius capitis, trapezius, and sternocleidomastoid muscles. These trigger points can result in cervical myofascial discomfort [6]. The World Health Organisation has identified headaches as one of the top ten most incapacitating conditions globally due to their severe levels of pain and the impairment they cause in both men and women [7]. Patients

receiving stretching therapies in the endurance and control groups report lower pain levels.

Stretching, dynamic, and isometric exercises were performed by the strength group. The endurance group engaged in stretching and dynamic muscle exercises. The control group executed stretches, and both approaches proved beneficial in reducing headaches [8]. The most popular physiotherapy treatment modalities for individuals with CGHs are joint manipulation and mobilisation. The method of manipulation frequently employed in the treatment of cervical headaches targets two separate spinal regions, such as the thoracic and cervical spines [9].

Mulligan manual therapy is a relatively new concept that utilises painless, low-velocity joint mobilisation techniques with the potential for active movement. This approach involves applying painless, sustained physical force to the upper cervical spine in an effort to alleviate headache symptoms or improve the mobility of the region [10]. Myofascial Release (MFR) is one type of manual therapy that has been extensively utilised in clinical practice. Palpable myofascial trigger points are commonly associated with tension-type headaches and migraines. As a result, one effective way to address headaches may be to release these myofascial trigger points [11]. The Graston technique is used by physical therapists to treat upper cervical discomfort and soft-tissue limitations [12].

Cervicogenic Headache (CGH) can significantly reduce a patient's quality of life and productivity at work. It has been discovered that short-term symptomatic relief with side effects is achievable through pharmacological management [12]. Cervical musculoskeletal impairment has been identified in many recurrent headache types and is not unique to CGH [13]. All these methods and techniques are employed in the treatment of CGHs. Both SNAGs (Sustained Natural Apophyseal Glides) and Rocabado's 6×6 exercises have been found to be similarly beneficial in treating CGHs; however, SNAGs yielded more relief than the Rocabado 6×6 exercises in terms of intensity, disability, frequency, and duration [14].

Cervicogenic headaches have become increasingly prevalent recently. CGHs are diagnosed based on symptoms of stiffness and discomfort in the neck, with headaches often worsening over time. This type of headache can disrupt daily activities and lead to stress, trauma, fatigue, and eyestrain. In managing CGHs, various interventions such as physical therapy, massage, medication, strengthening, stretching, ultrasound, and mobilisation may be employed. This comprehensive physical approach is designed to reduce CGHs, and differential effects can be observed across various techniques. Some techniques are very effective and rapid, while others are slower but still effective. The combination of two to three methods is generally more effective than relying on a single approach. The aim of this article is to provide a thorough overview of CGHs, covering a range of physical therapy treatments.

## MATERIALS AND METHODS

The the present systematic review gathered extensive information on CGHs and various physiotherapy methods. The objective and the title were framed using the Population, Intervention, Comparison, Outcome, and Study design (PICOS) format. The articles were sourced from PubMed by searching for terms such as "CGH," "AND," "physiotherapy," "OR," "headache cervicogenic,"

"AND," "physiotherapy," "Cervicogenic," "AND," "physiotherapy," "Cervicogenic," "AND," "Rehabilitation," and "Cervicogenic" OR "Rehabilitation." Boolean operators, "AND" and "OR," were utilised. Comprehensive electronic searches were conducted in March 2024. MeSH terms used in this search included CGH, CGHs, headache cervicogenic, and headaches cervicogenic. This article employs a Clinical Trial (CT) and Randomised Controlled Trial (RCT) study design, comprising 13 various interventions. The filters applied in the search are detailed below: results from 2005 to 2024, article language-English, species-humans, and sex-both male and female.

P: Population - CGH

I: Intervention - Physiotherapy (mobilisation, manipulation, massage, and biofeedback)

C: Comparator - Various interventions and their comparator group

O: Outcome - Neck Disability Impact Test, Test of Flexion and Rotation, Scale for Assessing Pain in Numbers, Disability Index of the Headache, Visual Analog Scale, Index of Neck Disability, Headache Disability Inventory, Global Rating of Change, Headache Test, Headache Diary, Cervical Range of Motion, Numeric Pain Rating Scale (NPRS), Global Change Rating (GRC), and Likert Scales.

**Inclusion criteria:** Articles with titles related to CGH and physiotherapy. The subjects included children, as well as males and females. Articles published from 2005 to 2024, studies written in English, and free full-text availability were also included.

**Exclusion criteria:** Articles were excluded if they related to neck-associated causes of headache, post-traumatic headache, systematic reviews, meta-analyses of the cranial-cervical region, or dry needling for headache.

## Screening

The screening of articles was conducted using the RAYYAN platform. Relevant studies that met the article's inclusion criteria were selected. Articles that did not meet the criteria were excluded.

In this review, data were collected for outcomes such as pain intensity (measured with the Visual Analogue Scale (VAS) or Numeric Rating Scale (NRS)), headache frequency (number of headache days per week or month), disability (using tools like the Neck Disability Index or Headache Disability Index), quality of life (assessed through the SF-36), patient-reported symptoms (including dizziness), and adverse events associated with treatments. All available data for these outcomes, across various time points and analyses, were gathered. When complete data were not provided, the most consistent time points and commonly reported measures were prioritised. The risk of bias in the included studies was assessed using the Physiotherapy Evidence Database (PEDro) Scale, as depicted in [Table/Fig-1] [7,8,12,15-22]. Two independent reviewers evaluated the risk of bias for each study, with any disagreements resolved through discussion. RAYYAN was employed for efficient study selection and data extraction, ensuring transparency throughout the process.

The Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) flow diagram illustrates the process of identifying and selecting studies for inclusion in a systematic review or meta-analysis [Table/Fig-2]. It encompasses various stages, The identification stage involves searching databases and registers to identify potentially relevant studies. In this review, 40 records were identified from the databases.

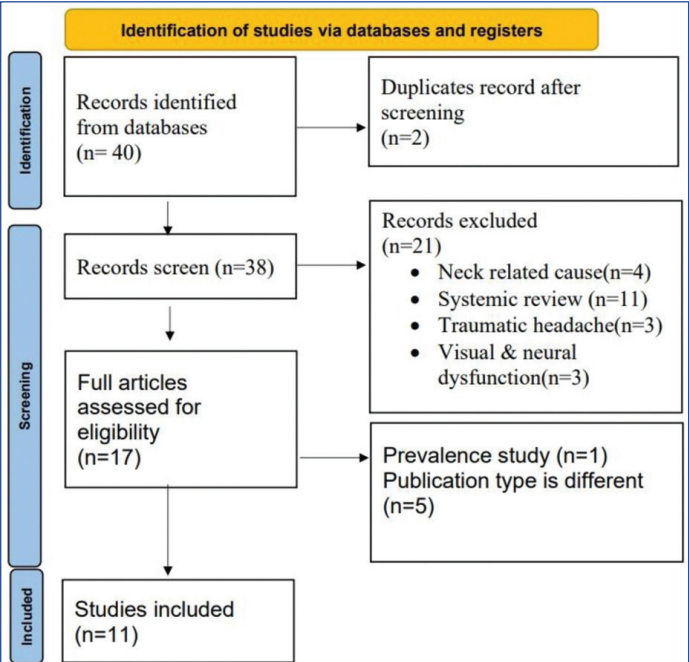
S. No.	Authors	Year	Publication type	Methodology	Outcome measure	Results	Analysis
1	Murtza S et al., [15]	2024	Randomised controlled trial	38 individuals, ages 20 to 60, who were afflicted with cervicogenic head-aches were divided into two groups, comprising 19 participants in every collective. One set of prolonged natural Apophyseal glides (SNAGs). Second Team is Rocabado 6*6 in program.	Index of neck disability impact test for headaches, Test of flexion and rotation, scale for assessing pain in numbers.	Rocabado's 6×6 exercises and SNAGs were found to be similarly beneficial in treating CGHs; however, SNAGs yielded more advantages in in terms of headache intensity handicap, regularity, as well as length compared to the Rocabado 6-inch Six workouts.	Sustained natural apophyseal glides produced more improvement in CGHs.

2	Hasan S et al., [16]	2023	Randomised comparative study	Two groups exist. Group-1: Deep Cervical Flexor Muscle (DCFM) strength training guided by biofeedback and traditional treatment for CGH. Group-2: Three weeks of manual therapy and traditional treatment for CGH.	Disability index of the Headache, Visual Analog Scale (VAS).	When the VAS and Headache Disability Index (HDI) groups were compared, a notable improvement was seen in every group. After two to three weeks of intervention, the outcome is displayed.	In comparison to DCFM training led by biofeedback, manual treatment had a lower effect size intervention for pain reduction. In addition, the two therapies had a similar level of success in reducing CGHs.
3	Mcdevitt AW et al., [7]	2022	Randomised controlled trial	48 patients exhibiting signs of CGHs. After four weeks, participants in the randomised 6-session thoracic spine manipulation and no treatment groups switched.	Index of neck disability, Headache Disability Inventory, and Global Rating of Change.	While thoracic spine manipulation significantly improved neck-related impairment, it had little effect on headache-related disability.	TSM did not increase participant perceptions of improvement, but it did improve problems associated to the neck, which in turn improved CGH.
4	Rani M and Kaur J [17]	2022	Randomised controlled trial	Participants 20-60 years in 4 groups (spinal mobilisation, neural mobilisation, postural correction and range of motion exercise). Sixteen sessions (4 weeks 4 times a week). Headache intensity, frequency, duration. Neck pain was assessed.	Headache test, Headache diary, Neck disability index.	The sample size determined 35 subjects in each group. It determines effectiveness of physiotherapy intervention in CGH.	Physiotherapy intervention to determine daily functional activity and quality of life.
5	Abdel Aal et al., [12]	2021	Randomised controlled trial	Two groups of sixty CGH patients were formed. Study group: Graston methods and workout regimen. Control group: merely the workout regimen. For four weeks, three sessions a week are completed. The length, frequency, and dosage of headache medications are taken as prescribed.	Neck disability index, Visual Analog Scale (VAS), cervical range of motion.	Following a two-week course of treatment, the Graston group exhibited a significant improvement in the measured outcomes.	Graston technique with exercise program reduced pain, headache frequency, and duration. It relieves pain in the upper cervical region and reduces soft-tissue restrictions.
6	Dunning J et al., [18]	2021	Randomised controlled trial	Over the course of 36 months, 142 patients with CGHs from 13 outpatient clinics in ten different states were recruited. Patients were randomly assigned to receive either upper cervical and upper thoracic spinal mobilisation and exercise (n=68) or upper cervical and upper thoracic spinal manipulation plus electrical dry needling (n=74). Four weeks make up the course of treatment.	Scale of numbers for evaluating pain, Index of Neck Disability, Global Change Rating (GRC).	When thrust spinal manipulation and electrical dry needling were used to treat CGHs, the amount of pain, frequency, and disability decreased much more than when non-thrust mobilisation and exercise were used. Effect sizes were significant mean score differences across all groups, with the electrical dry-needling and spinal manipulation group benefiting from them all.	In individuals with CGH, electrical dry needling and high-velocity, low-amplitude thrust spinal manipulation were more helpful than non-thrust mobilisation and exercise, and the results persisted for three months.
7	Lerner Lentz A et al., [19]	2021	Randomised controlled trial	Forty-five CGH patients were divided into two groups: mobilisation and pragmatically selected manipulation. Time and the treatment group are used as between-subjects variables in a mixed model analysis of variance to investigate the main goal.	Index of Neck Disability, Numerical Pain Rating System, impact test for headaches, Global Change Rating (GRC), Acceptable Symptom Scale for Patients (PASS).	For the GRC and PASS there are no appreciable differences between the groups.	When used pragmatically, manipulation produces similar effects on all tests for patients with CGHs.
8	Lynge S et al., [20]	2019	Randomised controlled trial	Children are having weekly headaches for 6 months. 2 groups are chiropractic and sham manipulation. Primary outcome -weekly number of headache and intensity and medication effect. Secondary outcome- side effect and headache intensity after 1 year.	Data analysis, Medication for headache.	It may be possible to change a child's life cycle of recurrent issues in order to produce an effective therapy for headaches in children, which could have positive effects on both individuals and society as a whole.	Headaches affect the lives of children negatively. Proper and safe medication should be taken.
9	Dunning J et al., [21]	2016	Randomised controlled trial	110 people with CGHs were randomly assigned to receive exercise (n=52) and cervical and thoracic manipulation (n=58). Three months following the first therapy session, there will be a follow-up evaluation. The treatment period lasts for four weeks.	The Neck Disability Index (NDI) and the Numeric Pain Rating Scale (NPRS), Global Change Rating (GRC).	After three months of follow-up, those with CGHs who received both cervical and thoracic manipulation showed higher reductions in headache intensity than mobilisation. The group that underwent upper cervical and upper thoracic manipulation also reported fewer headache episodes.	Upper cervical and upper thoracic manipulation is more common more efficient than mobilisation.
10	Haas M et al., [22]	2010	Randomised controlled trial	80 people suffering with recurrent CGHs. A total of four groups were randomly assigned to receive either eight or sixteen levels of treatment from a chiropractor (spinal manipulation and light massage). Monthly discomfort from baseline to 12 weeks was incorporated in the model.	Likert scales.	Throughout the course of the 8-week treatment period, the patient-provider encounter measurements were balanced and constant between the groups. The biggest influences on pain outcomes were treatment and baseline pain.	In comparison to baseline values and the effects of spinal manipulation and light massage therapy, the effects were determined to be minimal.



11	Ylinen J et al., [8]	2010	Randomised controlled trial	180 females from Office workers with persistent cervical discomfort were grouped into three collectives. Dynamic, group isometric strength and extending workouts, endurance squad vibrant and stretches for the muscle, group under control stretching routine.	Visual analog scale (VAS), Subgroups according to headache intensity.	Headaches decreased by strength group, endurance group, and control group after a 12-month period.	All training methods decreased CGH. Special care must be taken in training with a severe headache.
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[Table/Fig-1]: Summary of the articles reviewed [7,8,12,15-22].



[Table/Fig-2]: PRISMA flowchart.

The identified records were screened to remove duplicates and irrelevant studies. In this review, two duplicates were removed, leaving 38 records for screening. After screening, 21 records were excluded for various reasons, such as being unrelated to the research question or being of a different study type. The remaining 17 records were then assessed for eligibility based on pre-defined inclusion and exclusion criteria. Ultimately, 11 studies met the eligibility criteria and were included in the systematic review or meta-analysis. A two-step procedure for screening was adopted to ensure that studies met the inclusion criteria. First, two independent reviewers screened the title and abstract of all identified records against the inclusion criteria. The full text of potentially eligible studies was then retrieved and assessed by the same reviewers independently after screening the titles and abstracts. Where disagreements arose between the reviewers,

these were resolved through discussion. Automation tools, such as reference management software, were used to detect and remove duplicates. Screening and data extraction were also facilitated using systematic review software, RAYYAN, which streamlined the process and ensured consistency. A summary of the articles is provided in [Table/Fig-1] [7,8,12,15-22].

RESULTS

A number of Randomised Controlled Trials (RCTs) have been conducted to explore various treatments for CGHs. Murtza S et al., reported that Sustained Natural Apophyseal Glides (SNAGs) were found to be more effective than Rocabado 6×6 exercises in reducing headache intensity, frequency, and duration. Hasan S et al., found that Dynamic and Controlled Functional Movement (DCFM) strength training, when combined with biofeedback and manual therapy, significantly relieved pain, with DCFM proving to be more effective in providing pain relief. Neck complaints and the minimal impact of headaches on disability were also improved.

McDevitt AW et al., noted that thoracic spine manipulation is effective in treating CGHs. Rani M and Kaur J stated that physiotherapy interventions positively impact daily activities and quality of life. Abdel Aal et al., indicated a significant decrease in headache frequency, duration, and pain when employing the Graston technique in conjunction with exercise, compared to exercise alone. Dunning JR et al., showed that spinal manipulation with dry needling was more effective than mobilisation and exercise in reducing headache pain and disability.

Conversely, Ylinen J et al., reported that various exercise modalities, such as strength and endurance training, could reduce CGHs, highlighting the need for a specific type of training for more complicated cases. This research sheds light on the efficacy of different physiotherapy approaches in treatment. Some studies are more promising than others, leading to quicker improvements in cases of CGHs. There were methodological flaws in the included RCTs, the main one being that participants were not blinded (masked) to the intervention they received. A more thorough summary of the features of the investigations is provided in [Table/Fig-3] [7,8,12,15-22].

S. No.	Author name with year of publication	1 (Eligibility criteria specified)	2 (Random allocation)	3 (Allocation concealed)	4 (Baseline comparability)	5 (Blinding of subjects)	6 (Blinding of therapists)	7 (Blinding of assessors)	8 (Follow-up >85%)	9 (Intention-to-treat)	10 (Between-group comparisons)	11 (Point estimates and variability)	Total score	Main concerns
1	Murtza S et al., [15] 2024	Yes	Yes	No	Yes	No	No	No	Yes	No	Yes	Yes	6	Lack of concealed allocation, blinding of subjects, therapists, and assessors, intention-to-treat analysis (all 11 rows in the last column to be merged and the findings are for all the 11 articles together)
2	Hasan S, et al.. [16] 2023	Yes	Yes	No	Yes	No	No	Yes	Yes	No	Yes	Yes	7	
3	McDevitt AW et al., [7] 2022	Yes	Yes	Yes	Yes	No	No	No	Yes	No	Yes	Yes	8	
4	Rani M and Kaur J [17] 2022	Yes	Yes	No	Yes	No	No	No	Yes	No	Yes	Yes	6	
5	Abdel-Aal NM et al., [12] 2021	Yes	Yes	No	Yes	No	No	Yes	Yes	No	Yes	Yes	6	

6	Dunning J et al., [18] 2021	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	8
7	Lerner-Lentz A et al., [19] 2021	Yes	Yes	No	Yes	No	Yes	Yes	Yes	No	Yes	Yes	7
8	Lynge S et al., [20] 2019	No	Yes	No	No	No	No	No	No	No	Yes	No	2
9	Dunning JR et al., [21] 2016	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	8
10	Haas M et al., [22] 2010	Yes	Yes	No	Yes	No	No	No	Yes	Yes	Yes	Yes	6
11	Ylinen J, et al., [8] 2010	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	8

**[Table/Fig-3]:** Evaluation of each article's quality using the PEDro scale [7,8,12,15-22].

Although this article received a very low score, it highlights the effectiveness of chiropractic manipulation compared to sham manipulation for recurrent headaches in children. This focus on a varied population justifies its inclusion in the study [20].

## DISCUSSION

The purpose of this review is to assess how effectively a customised physical therapy treatment plan can manage CGHs. The goal entails evaluating the severity of the condition, as well as the intervention's effectiveness and ability to reduce discomfort. The articles under consideration covered various effects of physical therapy. An analysis of these results is essential for understanding multiple new approaches to treating CGHs.

Murtza S et al., explored in their article that sustained natural apophyseal glides are more effective than 6×6 exercise programmes [15]. Hasan S et al., stated that in manual therapy, the effect size for pain reduction was less successful than in biofeedback-guided DCFM training, although both treatments were found to be equally effective [16]. McDevitt AW et al., reported that thoracic spine manipulation did not significantly affect CGH; however, participants perceived an improvement in neck-related problems [7]. Rani M and Kaur J investigated physiotherapy interventions aimed at determining daily functional activity and quality of life [17]. Abdel Aal et al., indicated that the Graston technique, combined with an exercise programme, reduces pain in the upper cervical region and alleviates soft tissue restrictions [12]. Dunning J et al., found that for patients with CGHs, spinal manipulation and electrical dry needling were more beneficial than non-thrust mobilisation and exercise [18].

Lerner Lentz A et al., noted that, when used pragmatically, manipulation has similar effects across all tests for patients with CGHs [19]. Lynge S et al., highlighted that headaches negatively affect children's lives, emphasising the need for proper and safe medication [20]. Haas M et al., found a linear relationship between Spinal Manipulation Therapy (SMT) visits and days experiencing CGHs [23]. Dunning JR et al., reported that upper thoracic and upper cervical manipulation was more effective than mobilisation [21]. Bjorklund M et al., discussed that women who are mentally unwell should consider the biological causes of neck pain, suggesting that psychosocial variables ought to be incorporated into a broader treatment decision model in future research. No significant negative outcomes or side effects were anticipated [24]. Haas M et al., noted that the effects of spinal manipulation and light massage therapy were negligible compared to baseline values [25].

Ylinen J et al., found that stretching, frequently advised for patients, worked better when combined with strength and muscle endurance training [8]. Fredriksen TA et al., discussed how a doctor may refer a patient with a headache according to diagnostic guidelines, noting that the International Headache Society (IHS) system seems to present criteria differently for primary and secondary headaches, with secondary headaches (such as CGHs) focusing on underlying pathology, while primary headaches delve deeper into the headache itself [26]. Satpute K et al., examined whether exercise and manual muscle therapy are more effective than exercise and a placebo for treating migraines, tension-type headaches, and CGHs [10]. Wells RE et al., found that although both groups experienced

similar reductions in migraine frequency, Mindfulness-Based Stress Reduction (MBSR) significantly reduced depression, improved quality of life, self-efficacy, pain catastrophising, and disability, with a potential change in pain assessment indicated by decreased experimentally induced discomfort lasting up to 36 weeks [27].

Wang E and Wang D explained the neuroanatomy, neurophysiology, and classification of Cervical Epidural Stem Cell Injections (CESI), which are employed to treat this debilitating disorder [6]. Ekhtor C et al., suggested that radiofrequency ablation might be more successful than epidural steroid injection as an interventional treatment [28]. Moore CS et al., advised that primary healthcare practitioners should exercise caution when utilising this widely accepted method of managing headaches to ensure safe, efficient, and well-coordinated care [29]. Bevilacqua-Grossi D et al., highlighted that physical therapy raises the pain threshold associated with cervical pressure, predicts clinically significant changes, and improves patient satisfaction [30]. Lee JB et al., concluded that, when appropriately chosen, cervical zygapophyseal joint neurotomy has been shown to significantly reduce pain in patients with chronic CGHs [31].

## Limitation(s)

The limitation of this review is the absence of treatment protocols for the long-term management of prevalent CGHs.

## CONCLUSION(S)

Physical therapy should be enhanced to alleviate the pain associated with CGHs. After reviewing the articles, we concluded that various physical therapy approaches improve the duration, frequency, pain, and intensity of CGHs. The different methods include stretching and mobilisation, as well as sustained natural apophyseal glides, medication, spinal manipulative therapy, and myofascial trigger point therapy. All these methods contribute to improved muscular strength and help prevent headaches from interfering with daily functional activities. Additionally, they enhance sleep quality. The various exercises reduce muscle spasms and aid in increasing the concentration of patients or individuals suffering from CGHs at work. Further research is warranted to optimise treatment protocols and ensure the long-term management of these prevalent CGHs.

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