INPLASY

Effectiveness of Mulligan Manual therapy in improving headache frequency and intensity in patients with cervicogenic headache: A systematic review

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ADMINISTRATIVE INFORMATION

INTRODUCTION

Review question / Objective What is the effect of Mulligan Manual Therapy on headache intensity and frequency in patients with cervicogenic headache?

Rationale The Cervicogenic Headache (CEH) is most commonly found headache which occurs due to lesions in the structures innervated by the high cervical nerves cause afferent injurious sensory messages from the high cervical nerves that are connected. Different cervical spine anatomic structures may be the source of the etiology of CEH. Pharmacological and Physiotherapeutic interventions are being studied for its management. Mulligan Manual Therapy (MMT) is thought to be beneficial in improving Neck pain and headaches however the existing literature lacks evidence to strengthen the results produced by MMT, hence this systematic review is done to investigate the effects of same on various indicators of Cervical Spine health and Headache frequency and intensity.

Condition being studied Cervicogenic Headache.

METHODS

Search strategy MEDLINE, PubMed, Scopus, Web of Science (WoS), Cochrane.

Participant or population Patients of both genders suffering with Cervicogenic Headache.

Intervention Mulligan Manual Therapy.

Comparator Other physiotherapy interventions.

Study designs to be included Randomized Control Trial.

Eligibility criteria The studies were included in the present review were constrained to English Language only with study design as Randomized Controlled Trial published between 2019- 2024. The studies were included only if at least one intervention was Mulligan Manual therapy (MMT) like Upper Cervical Traction, Sustained Natural Apophyseal Glide (SNAGs), NAG (Natural Apophyseal Glide) compared with other therapeutic interventions like traditional treatment, strengthening exercises, stretching or if various MMT interventions compared with themselves. The studies for which full text publications were not available were excluded along with ones having no control group or duplicate studies or having patient population with neural symptoms were also excluded from current review.

Information sources MEDLINE, PubMed, Scopus, Web of Science (WoS), Cochrane.

Main outcome(s) Headache Frequency, Visual Analogue Scale , Neck Disability Index, Headache Impact Test-6 (HIT-6), Cervical Range of Motion by Goniometry and Flexion Rotation test.

Additional outcome(s) Hamilton Anxiety Scale (HAMA), Hamilton Depression Scale (HAMD), Beck Depression Scale, MRI.

Quality assessment / Risk of bias analysis Risk of bias analysis was done using PEDRO-Physiotherapy Evidence Database, which is 11 point scale scored according to the characteristics of methodology and result of individual studies.

Strategy of data synthesis The data will be analyzed using SPSS version 27.0, with fixed effect model used for homogenous data and random-effects model will be used for clinical methodological heterogenicity. If meta-analyses aren't feasible, a narrative summary will be provided, addressing direction, size, consistency and evidence of the research.

Subgroup analysis To eliminate the random variance between the major research estimates, we shall undertake a subgroup analysis. The subgroup analysis will be based on the study's quality as well as the outcomes, participant's age and gender.

Sensitivity analysis If there is enough data, sensitivity analyses will be performed on variables such as study quality, missing data, study size, allocation concealment, assessor blinding, comparator care features, and intervention attributes. These analyses will contrast high and low risk of bias, assessor blinding, and big variations in normal care or modest changes in treatment between control and intervention groups.

Language restriction Only English.

Country(ies) involved India - Sharda University, Greater Noida, UP.

Keywords Cervicogenic Headache; Mulligan Manual Therapy; SNAG.

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