

A Clinical Study to Evaluate the Effectiveness of Aesculus Hippocastanum 30C in Unspecified Dorsalgia in Automobile Drivers by Using Quebec Scale

Dr. Ambala Sriharitha.¹, B. Madhu Babu²

¹Professor, Department of Homoeopathic Materia Medica, MNR Homoeopathic Medical College and Hospital, Fasalwadi, Sangareddy, Telangana, India

²Intern, MNR Homoeopathic Medical College and Hospital, Sangareddy, Telangana, India

Corresponding Author: Dr. Ambala Sriharitha.

DOI: <https://doi.org/10.52403/ijrr.20260311>

ABSTRACT

Non-specific back pain classified as Unspecified Dorsalgia (ICD-11: ME84.Z) is defined as pain of the posterior trunk where the anatomical or structural pathology remains unidentified following clinical examination. This condition is highly prevalent among automobile drivers due to prolonged sitting, poor posture, and constant vibration exposure. This study examined the contributing factors of Unspecified Dorsalgia in drivers and evaluated the therapeutic effectiveness of Aesculus hippocastanum 30C in improving Unspecified Dorsalgia using the Quebec Back Pain Disability Scale. Findings indicated that high rates of Unspecified Dorsalgia are linked to long driving hours, inadequate ergonomics, and physical inactivity. The study concludes that addressing these issues through ergonomic improvements and regular exercise, combined with the administration of Aesculus hippocastanum 30C, significantly reduces Unspecified Dorsalgia and improves drivers' health and productivity.

Key Words: Unspecified Dorsalgia, Automobile drivers, Aesculus hippocastanum, QUEBEC scale, Homoeopathy

INTRODUCTION

Unspecified Dorsalgia has emerged as a leading cause of occupational disability, especially among Automobile drivers. This population is at high risk for this condition due to the prolonged static sitting, poor ergonomic posture, and constant whole-body vibration. While low back pain (LBP) has a global lifetime prevalence of 84%, the vast majority of these cases are mechanical or "unspecified" in nature, lacking a clear structural pathology. Traditional management often relies on analgesics and NSAIDs, which may offer only transient relief and are associated with adverse side effects on long-term use. Homeopathy offers a promising alternative in this condition due to its holistic approach. Aesculus hippocastanum has a specific affinity for the lumbosacral region and the symptoms of venous congestion and heaviness associated with sedentary occupations.

Aesculus hippocastanum commonly called as Horse Chestnut, belongs to family Sapindaceae Its indications include lame, dull pain in the lumbar region and a sensation as if the small of the back gives out and makes one unfit for business. The patient has to make repeated efforts at rising; it is almost impossible to rise after sitting down. There is stiffness in the back, making it almost impossible to walk. The lumbar region or

back feels as if it would break. There is bruised pain in the sacrum and hips, with a paralytic heaviness of the arms, spine, and feet.

AIM: To study effectiveness of Aesculus Hippocastanum 30c in Unspecified Dorsalgia among automobile drivers using QUEBEC scale

OBJECTIVE: To evaluate the effectiveness of Aesculus Hippocastanum 30c in Unspecified Dorsalgia using QUEBEC scale

HYPOTHESIS:

NULL HYPOTHESIS: (H₀): Aesculus Hippocastanum 30c is not effective in the treatment of Unspecified Dorsalgia.

ALTERNATE HYPOTHESIS: (H_a): Aesculus Hippocastanum 30c is effective in treatment of Unspecified Dorsalgia.

SELECTION CRITERIA:

Inclusion criteria-

1. Patients who are automobile drivers.
2. Both genders.
3. Patients age between 20 to 45 years are taken into study
4. Patients with Minimum & Moderate disability score in Quebec scale are only included in study

Exclusion criteria-

1. Persons with any kind of systemic complications.
2. Patients who scored above 40 in Quebec Scale are not included in study.

MATERIALS AND METHODS

20 cases were selected for the study on a simple random basis from the patients attending the IPD, peripheral OPD, and camps of MNR Homoeopathic Medical College and Hospital. The study was carried out over a period of 9 months

Type of study: Clinical study.

Assessment tool: Quebec Back Pain Disability Scale

Statistical tool: paired T test

Ethical consideration: Ethical clearance to this research topic was taken from the institutional ethical committee.

METHOD OF COLLECTION OF DATA

A sample of minimum 20 cases will be selected based on inclusion and exclusion criteria. It was ensured that all the patients are made aware of the study in their own language and an informed consent letter was taken from every individual. The data was collected and processed in clinical case sheet format. All the details of the patient were kept confidential. The subjects were intervened with Aesculus hippocastanum. Patients were advised to report at 15-day intervals for regular follow-ups. Improvement was assessed by Quebec Back Pain Disability Scale before and after treatment.

The Quebec Back Pain Disability Scale (QBPDS):

The Quebec Back Pain Disability Scale (QBPDS) is a self-report instrument developed to assess functional disability due to back pain. It consists of 20 items that measure the difficulty a person has in performing daily activities commonly affected by back problems. Each item is scored on a 5-point Likert scale ranging from 0 (not difficult at all) to 5 (unable to do), providing a total score range from 0 to 100, with higher scores indicating greater disability. (13)

The QBPDS has been validated in multiple languages and populations and is widely used in both clinical and research settings to evaluate treatment outcomes and monitor patient progress.

Scoring:

Total Score = Sum of item scores

Interpretation:

- 0–19: Minimal disability
- 20–39: Moderate disability
- 40–59: Severe disability
- 60–100: Very severe disability

OBSERVATIONS AND RESULTS

A total of 20 individuals sample size has been taken; the statistical data of observations and results are as follows.

Table 1. Distribution of cases according to age group

Sl. no	Age group	No. of patients	Percentage
1	30-35	05	25%
2	36 - 40	10	50%
3	41-45	5	25%
	Total	20	100%

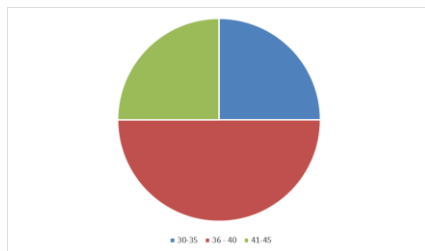


Figure 1: Age Incidence of dorsalgia in automobile drivers.

Table.2. Distribution of cases according to Gender

Sl. no	Gender	No. of patients	Percentage
1	Male	17	85%
2	Female	3	15%
	Total	20	100%

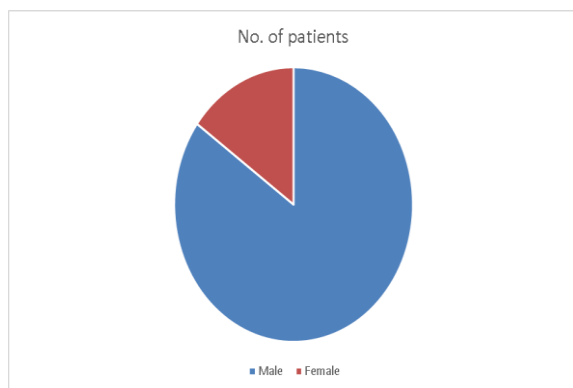


Figure.2. Gender Incidence of dorsalgia

TABLE No.3 distribution of cases according to built

S.NO	BUILT	CASES	PERCENTAGE
1	Moderately Built	16	80%
2	Obese	4	20%

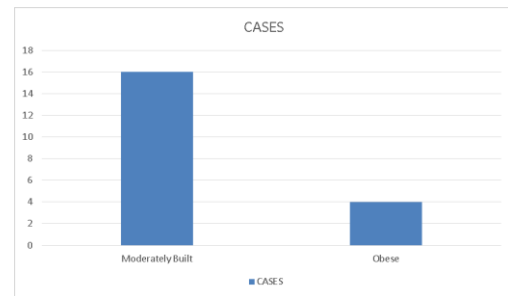


Figure 3 distribution of cases according to built

TABLE No. 4 distribution of cases according to working hours-

S.NO	WORKING HOURS	CASES	PERCENTAGE
1	6-7 hours	13	65%
2	2-3 hours	7	35%



Figure 4: distribution of cases according to working hours-

TABLE 5: distribution of cases according to pain scale score

S.NO	CASE	BEFORE	AFTER
1	Mr M	32	24
2	Mr K	27	20
3	Mr.R	38	18
4	Mr. N	22	6
5	Mr.V	29	20
6	Mr.S	25	9
7	Ms.L	34	16
8	Mr.Y	21	7
9	Mr.T	31	13
10	Mr.F	39	20
11	Mr.U	24	12
12	Mr.J	36	17
13	Mr.Q	20	5
14	Ms.A	33	15
15	Ms.K	28	22
16	Mr.P	26	9
17	Mr.X	37	19
18	Mr.H	23	19
19	Mr.Z	35	20
20	Mr.T	21	6

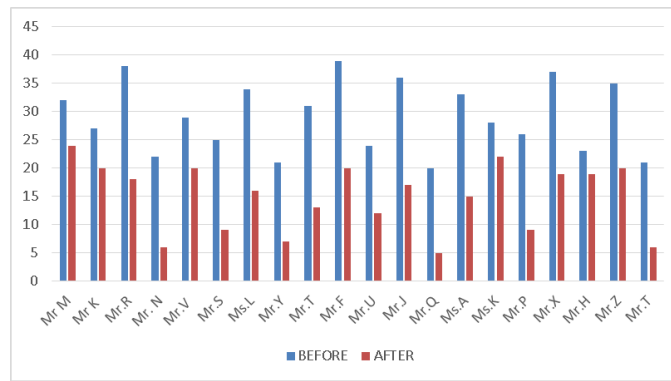


Figure 5: distribution of cases according to pain scale score

TABLE 6: distribution of cases according to remarks-

S.NO	REMARKS	CASES	PERCENTAGE
1	Marked improvement	12	60%
2	Moderate improvement	5	25%
3	Less improvement	3	15%

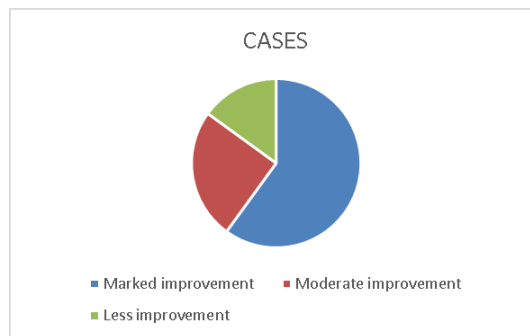


Figure 6: distribution of cases according to remarks

Statistical analysis:

As the sample size is not more than 20, “Z-test” is not applicable. So, the obtained data is subjected to “Paired t-test”.

TABLE NO. 7: Score before and after, showing difference

S.NO	Before Treatment(X1)	After Treatment(X2)	Difference (X1X2=D)	(D) ²
1	32	24	8	64
2	27	20	7	49
3	38	18	20	400
4	22	6	16	256
5	29	20	9	81
6	25	9	16	256
7	34	16	18	324
8	21	7	14	196
9	31	13	18	324
10	39	20	19	361
11	24	12	12	144
12	36	17	19	361
13	20	5	15	225
14	33	15	18	324
15	28	22	6	36
16	26	9	17	289
17	37	19	4	16
18	23	19	4	16
19	35	20	15	225
20	21	6	15	225

TABLE NO.8 - paired t test before and after:

GROUP	BEFORE	AFTER
Mean	28.05	14.55
SD	5.76	6.05
SEM	1.29	1.35
N20	20	20

Statistical analysis and interpretation: The paired t-test was applied to compare the mean scores before and after treatment. The mean score before treatment was higher compared to the mean score after treatment, indicating a reduction in severity following intervention. The calculated mean difference was 13.5. The obtained t value (13.63) is greater than the table value at 5% level of significance with 19 degrees of freedom. The corresponding p value is less than 0.0001, which shows that the difference is highly statistically significant. The 95% confidence interval for the mean difference was found to be 11.43 to 15.57, which does not include zero, further confirming the statistical significance of the results.

Hence, the null hypothesis (H_0) is rejected and the research hypothesis (H_1) is accepted. This indicates that Aesculus hippocastanum 30C is effective in reducing disability and pain in patients suffering from unspecified dorsalgia.

DISCUSSION

The clinical study demonstrates that Unspecified Dorsalgia is predominantly observed in the 36–40 age group, indicating that middle-aged drivers are most vulnerable to occupational strain during their most productive years. Gender distribution showed a significant male predominance (85%), reflecting the current demographic of the professional driving sector and their exposure to longer, and more strenuous shifts. Regarding physical built, 80% of patients were moderately built; however, the presence of obesity in 20% of cases served as a significant aggravating factor for dorsalgia. Working hours revealed that 65% of participants drove 6–7 hours daily, confirming that prolonged static posture and whole-body vibration are the primary

triggers for "unspecified" dorsalgia. The therapeutic efficacy of Aesculus Hippocastanum was measured using the Quebec Back Pain Disability Scale, where the mean score dropped significantly from 28.05 to 14.55. This indicates a marked improvement in 60% of cases, supported by a highly significant p-value (< 0.0001).

CONCLUSION

The study demonstrates that the administration of Aesculus hippocastanum 30C, when combined with ergonomic advice and stretching, successfully reduces functional disability and restores productivity in automobile drivers.

Limitations

The sample size of the study was small ($n=20$).

Only a single remedy was selected for the study.

The study duration was limited.

Further studies with a larger sample size and a longer follow-up period are recommended.

Declaration by Authors

Ethical Approval: Approved

Acknowledgement: None

Source of Funding: None

Conflict of Interest: No conflicts of interest declared.

REFERENCES

1. Alagappan, R. (2011). Manual of Practical Medicine. Jaypee Brothers Medical Publishers.
2. Boericke, W. (2023). New manual of homoeopathic materia medica & repertory with relationship of remedies: Including Indian drugs, nosodes uncommon, rare remedies, mother tinctures, relationship, sides of the body, drug affinities & list of abbreviation: 3rd edition. B Jain.
3. Bovenzi, M., Rui, F., Negro, C., D'Agostin, F., Angotzi, G., Bianchi, S., Bramanti, L., Festa, G., Gatti, S., Pinto, I., Rondina, L., & Stacchini, N. (2006). An epidemiological study of low back pain in professional drivers. Journal of Sound and Vibration,

- 298(3), 514–539.
<https://doi.org/10.1016/j.jsv.2006.06.001>
4. Bréder, V. F., Dantas, E. H., & Silva, M. A. (2006). Low back pain and psychosocial factors among bus drivers. *Fitness & Performance Journal*, 5, 306–311.
 5. Clarke, J. H. (2022). *A dictionary of practical materia medica; Volume 1*. Legare Street Press.
 6. Gmünder, R., & Kissling, R. (2002). The Efficacy of homeopathy in the treatment of chronic low back pain compared to standardized physiotherapy. *Z Orthop Ihre Grenzgeb*, 140(5), 503–508.
 7. Lower back pain. (2023, August 29). Cleveland Clinic. <https://my.clevelandclinic.org/health/disease/s/7936-lower-back-pain>.
 8. Monticone, M., Baiardi, P., & Vanti, C. (2012). Responsiveness of the Quebec Back Pain Disability Scale and the Oswestry Disability Index in Italian subjects with subacute and chronic low back pain. *Eur Spine J*, 21(1), 122–129.
 9. Murphy, R. (2021). *Lotus Materia Medica*. B Jain.
 10. P. Shah, D. I. (2019). Assessment of the effectiveness of Homoeopathic remedies in improving quality of life of chronic Low Back pain: A prospective study. *International Journal of Medical and Biomedical Studies*, 3(4).
<https://doi.org/10.32553/ijmbs.v3i4.222>.
 11. Srr, E., & Bs, A. (2020). Efficacy of homoeopathic medicines in chronic low back pain: a clinical study. *International Journal of Alternative and Complementary Medicine*, 17–20.
 12. Stratford, P. W., & Binkley, J. (1995). The Quebec Back Pain Disability Scale: measurement properties. *Spine*, 20(19), 2169–2170.
 13. Unspecified Dorsalgia and Occupational Hazards. *East African Scholars*. (2022). *J Med Sci*, 5(9).
 14. Vermeulen, F. (2011). *Concordant Reference: Complete Classic Materia Medica*.
 15. Waddell, G., Newton, M., Henderson, I., Somerville, D., & Main, C. J. (1993). A Fear-Avoidance Beliefs Questionnaire (FABQ) and the role of fear-avoidance beliefs in chronic low back pain and disability. *Pain*, 52(2), 157–168.
[https://doi.org/10.1016/0304-3959\(93\)90127-B](https://doi.org/10.1016/0304-3959(93)90127-B)
 16. Witt, C. M., Lüdtke, R., Baur, R., & Willich, S. N. (2009). Homeopathic treatment of patients with chronic low back pain: A prospective observational study with 2 years' follow-up: A prospective observational study with 2 years' follow-up. *The Clinical Journal of Pain*, 25(4), 334–339.
<https://doi.org/10.1097/AJP.0b013e31819050bb>.

How to cite this article: Ambala Sriharitha., B. Madhu Babu. A clinical study to evaluate the effectiveness of aesculus hippocastanum 30C in unspecified Dorsalgia in automobile drivers by using Quebec scale. *International Journal of Research and Review*. 2026; 13(3): 91-96. DOI: <https://doi.org/10.52403/ijrr.20260311>
