Orthopedics & Rheumatology-2013
2nd International Conference and Exhibition on
Orthopedics & Rheumatology
August 19-21, 2013 Embassy Suites Las Vegas, USA

Comparison of supine and sitting positions cervical traction on cardiovascular parameters, pain and neck mobility in patients with cervical spondylosis

S. R. A. Akinbo

University of Lagos & LUTH Lagos, Nigeria

Abstract

Objective: This study investigated the cardiovascular responses and side effects during cervical traction (CT) in sitting and supine positions; and also to compare the effects of both positions on pain and neck mobility in patients with cervical spondylosis.

Methods: One hundred (100) patients were assigned into two groups (A and B) with 50 patients in each group. Group A patients were treated with CT in supine position, Transcutaneuos Electric Nerve Stimulation (TENS), massage and exercise, so also were patients in Group B, but the CT was applied in sitting position. Cardiovascular parameters, PR interval and QRS complex were assessed and analysed during CT for 15 minutes. Pain intensity and neck mobility were also assessed and analysed for 4 weeks. Analysis of variance (ANOVA) and post-hoc test were used to determine significant difference in the cardiovascular and ECG parameters. Man - Whitney U test was used to compare mean pain intensity between the two groups, while Wilcoxon signed ranks test was used to compare mean pain intensity within the same group. Also t-test was used to analyse significant difference for cervical mobility. The level of significance was put at $P<0.05$.

Results: The study reveals similar direction of cardiovascular (SBP, DBP and RPP) alterations in both positions during CT ($P<0.05$). The HR and selected ECG variables were not significant throughout the traction periods ($P>0.05$). Twenty four (9 and 15 in supine and sitting positions CT respectively) patients experienced different side effects during CT application, with the neck muscle tenderness the mostly occurred in the two groups. Also, the study reveals the effectiveness of the two traction positions in terms of pain relief and enhances neck mobility in the subjects studied. But the supine CT position recorded a higher mean difference.

Conclusion: Findings from the study supports the use of either the supine or sitting positions CT in the management of patients with cervical spondylosis, but the supine position proved to be a better option.

Biography

S. R. A. Akinbo Ph.D. is presently the Professor and Head/Chairman, Department of Physiotherapy, College of Medicine, University of Lagos (CMUL), and also the Head and Consultant Physiotherapist, Department of Physiotherapy, Lagos University Teaching Hospital Lagos (LUTH) Lagos Nigeria. He has supervised into completion 5 Ph.D., 20 MSc theses and 145 BSc research projects. He has published well over 65 research studies in peered reviewed journals wish has contributed to knowledge in his area of professional specialization (Physiotherapy in Orthopeadics and Sports). He has attended well over 60 conferences locally and internationally, and has presented paper as a guest speaker in 50 conferences/workshop and seminars. He has received and completed 4 research grants to completion. He has 20 years of universities teaching and research experiences. He has won 7 special professional and community merit awards. He was formally the editor in chief and chairman editorial board and editor, Nigerian J Medical Rehabilitation and Nigerian Quarterly J Hospital Medicine respectively. He has served and is still serving his country/continent and profession in several areas as chairman of several accreditation panels to Universities, teaching hospitals and federal medical centers in Nigeria/Africa. He is a member of several professional associations.