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Impact of Cardiac Rehabilitation on Autonomic Function: A Systematic Review

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ABSTRACT

Introduction: The rise in number of cardiac patients has significantly increased the demand for cardiac rehabilitation practises. Cardiac rehabilitation is the sum of activities and interventions required to ensure best possible conditions for patients with chronic or post-acute cardiovascular disease to resume an active life. This study sheds light on its contribution in maintaining autonomic homeostasis.

Aim: To identify and highlight the impact of cardiac rehabilitation on autonomic functioning, and its ability to achieve Sympathovagal balance in terms of parameters like Heart Rate Variability (HRV) and Baroreflex Sensitivity (BRS).

Materials and Methods: This study optimises the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) method for conducting a systematic literature review. Due to their reliability, google scholar, PubMed, Science Direct and Research Gate were used to obtain data.

Results: Upon interpreting physiological parameters such as HRV and BRS closely, it was seen that cardiac patients who had undergone cardiac rehabilitation achieved an improved sympathovagal balance and autonomic homeostasis, contributing to more smooth and effective autonomic functioning.

Conclusion: Parameters like HRV and BRS demonstrate significant improvement following cardiac rehabilitation. It is reasonable to state that incorporating cardiac rehabilitation into patients' treatment regimen is beneficial in maintaining autonomic harmony and facilitating smooth autonomic functioning.

Keywords: Baroreflex sensitivity, Heart rate variability, Sympathovagal balance

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