

Pengaruh frekuensi latihan fisik terhadap peningkatan heart rate recovery pada pasien pasca bedah pintas arteri koroner yang menjalani rehabilitasi jantung fase II = Effect of frequency of exercise training in patients after coronary artery bypass surgery who underwent phase II cardiac rehabilitation

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Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20367179&lokasi=lokal>

Abstrak

Background:

Cardiac rehabilitation in patients with Coronary Artery Bypass Surgery (CABG) is an effective way in reducing mortality in patients with coronary heart disease (CHD). The presence of impaired cardiac autonomic function is increase the risk of arrhythmias and sudden death. Exercise training as one component of cardiac rehabilitation can improve autonomic function that can be measured indirectly with Heart Rate Recovery (HRR). The aim of this study is to assess the effect of the frequency of physical exercise on improved of HRR.

Metod:

The data used for this analysis include 100 patients who underwent second phase of cardiac rehabilitation after CABG at Pusat Jantung Nasional Harapan Kita, Jakarta between July and October 2013. Patients were categorized into group I (exercise 3 times a week) : 40 people and group II (5 times a week exercise) : 60 people. Heart rate recovery was measured with a 6 minute walk test (6MWT). Measurements were performed 2 times, in the early phase and the evaluation phase after 12 times. Increased HRR from both groups were analyzed by linear regression analysis.

Result :

In our study, age, gender, diabetes mellitus, psychological, smoking, coronary artery bypass surgery and the duration of aortic cross clamp did not affect the increase of HRR. Five times a week exercise training gives significant increase of HRR compare to 3 times a week exercise training after analyzed multivariate linear regression (RR 2.9, 95% KI 1.53 to 4.40, $p < 0.001$).

Conclusion:

Frequency of physical exercise 5 times a week give a better response to the increase in HRR than exercise 3 times a week.

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Latar Belakang:

Rehabilitasi jantung pada pasien Bedah Pintas Arteri Koroner (BPAK) merupakan tindakan efektif dalam menurunkan mortalitas pada pasien dengan Penyakit Jantung Koroner (PJK). Adanya gangguan fungsi otonom jantung dikatakan meningkatkan risiko aritmia dan kematian mendadak. Latihan fisik sebagai salah satu komponen rehabilitasi jantung dapat meningkatkan fungsi otonom yang dapat diukur secara tidak langsung dengan Heart Rate Recovery (HRR). Penelitian ini bertujuan untuk menilai pengaruh frekuensi

latihan fisik terhadap peningkatan HRR.

Metode:

Sebanyak 100 pasien pasca BPAK yang melakukan rehabilitasi jantung fase II dipilih secara konsekutif sejak 1 Juli ? 15 Oktober 2013 di Pusat Jantung nasional Harapan Kita, Jakarta. Pasien dikelompokkan menjadi kelompok I (3 kali latihan seminggu) sebanyak 40 orang dan kelompok II (5 kali latihan seminggu) sebanyak 60 orang. Heart rate recovery satu menit diukur dengan uji jalan 6 menit/6 minute walk test (6MWT). Pengukuran dilakukan 2 kali, pada fase awal dan fase evaluasi setelah 12 kali. Peningkatan HRR dari kedua kelompok dianalisa dengan analisa regresi linier.

Hasil:

Pada studi kami, usia, gender, diabetes melitus, psikologis, merokok, bedah pintas arteri koroner dan lamanya aortic cross clamp setelah dianalisa tidak mempengaruhi peningkatan HRR secara bermakna. Frekuensi latihan 5 kali seminggu memberikan peningkatan HRR yang bermakna secara statistik dibandingkan 3 kali seminggu setelah dianalisa dengan regresi linier multivariate (RR 2,9; 95 % IK 1,53-4,40, $p < 0,001$)

Kesimpulan: Frekuensi latihan fisik 5 kali seminggu memberikan respon yang lebih baik terhadap peningkatan HRR dibandingkan latihan 3 kali seminggu.