Case report: rehabilitation of a patient after surgical replacement of mitral and aortal valve with mechanical prostheses

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Case report: This case report describes a female patient with chronic heart failure and several accompanying complications, who underwent a successful surgical replacement of stenotic aortal and mitral valve with mechanical valves, and (after initial postoperative anti-infectious antibiotic treatment) has been transferred to hospital for further rehabilitation. The aim of rehabilitation was to alleviate pain, to increase the strength and resistance to fatigue, to improve pulmonary function - in brief, to increase functionality in daily life activities. The interventions were planned based on physiotherapeutic assessment and evaluation, in consultation with the cardiologist. The early rehabilitation phase (2 weeks) was initiated in isolation (due to existing infections) at the Department of Internal Medicine, and it was continued for 3 more weeks after the end of isolation. The physical therapy was performed twice a day for 45 minutes. At the beginning of rehabilitation, the patient was almost immobile (paresis of the right arm and leg, inability to turn herself in the bed, to sit, to stand up and perform personal hygiene). The early intervention consisted of positioning, respiratory training with drainage positions and verticalization. As the condition of patient significantly improved, she was transferred to Cardiological Ward, where she underwent a second phase (25 days) of rehabilitation. Significant improvements were noted in following parameters: 6-minute walking test (immobile at the onset, able to walk 100 m at the end), improved spirometry results (initial FEV 1 42%, FVC 49%, VC IN 48%; final FEV 1 48%, FVC 60%, VC IN 55%); the patient was cardiopulmonary compensated, the intensity of pain has been decreased, and dyspnea significantly diminished; she is able to get up from bed and perform personal hygiene without help; she walks using single crutch and with occasional resting pauses, on flat surfaces as well as up and down the stairs.¹⁻³

Conclusion: This case clearly demonstrates that joint activities of well-organized team of cardiologists, nurses, physical therapists, and psychologists can yield significant rehabilitation results even in patients with serious initial condition and diagnoses.

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