Rezultati programa ugradnje uređaja za mehaničku potporu lijevoj klijetki u uznapredovalom zatajivanju srca u Kliničkoj bolnici Dubrava

Results of left ventricular assist device program for advanced heart failure at University Hospital Dubrava

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Mehanička cirkulacijska potpora sa crpkom za potporu lijevoj klijetki (LVAD) je usprkos etabliranom programu transplantacije srca (HTx) i medikamentoznoj terapiji, i dalje vrijedna terapijska opcija u pojedinih bolesnika s unzapredovalim srčanim zatajivanjem.[1]

U ovom prikazu donosimo naša iskustva i rezultate u bolesnika kojima je implantiran LVAD u sklopu programa Zavoda za bolesti srca i krvnih žila i Zavoda za kardijalnu i transplantacijsku kirurgiju Kliničke bolnice Dubrava.

Retrospektivno smo analizirali podatke 18 bolesnika kojima je ugrađen LVAD između listopada 2011. i listopada 2016. godine. Srednja dob je bila 56,6 ± 13,0 godina, a 61% su bili muškarci. Dilatativna je kardiomiopatija bila glavna dijagnoza u 56% bolesnika, a ishemijska u 44%. Dvoje bolesnika (11%) su bili u stadiju INTERMACS 1, isto tako dvoje u stadiju 2, dok je 6 bolesnika (33%) odgovaralo profilu INTERMACS 3 stadija, a 8 (44%) stadiju 4. Najviše je ugrađeno HeartMate II uređaja i to kod 11 bolesnika (61%), HeartWare je dobilo 5 (27%), a HeartMate III troje bolesnika (17%). Ukupno je 50% bolesnika na LVAD-u kao destinacijskoj terapiji (DT), dvoje (11%) se vode kao "bridge to candidacy", 3 (17%) kao "bridge to decision", dok se 4 bolesnika vodilo kao "bridge to transplant" (BTT). Svi u bolesnici u DT skupini imali su kontraindikaciju za HTx, osim jednog koji je odbio promjenu statusa u BTT. Od 4 BTT bolesnika, dvoje ih je podvrgnuto HTx. Ukupno preživljenje 30 dana, 6 mjeseci i 1 godinu nakon implantacije LVAD-a je iznosilo 88%. Oboje preminulih bolesnika umrli su unutar mjesec dana od implantacije, uslijed teškog desnostranog srčanog zatajivanja. 12 mjeseci od implantacije, u preživjelih se NYHA stadij poboljšao s 3,8 ± 0,3 na 2,1 ± 0,5.

Ugradnja LVAD-a je dobra terapijska opcija za bolesnike s uznapredovalim zatajivanjem srca koji nisu kandidati za HTx ili kao strategija za premoštenje s dobrim preživljenjem i oporavkom. Važna pretpostavka za uspješan LVAD program je pažljiv odabir i dobra priprema bolesnika prije, kao i redovite kontrole poslije implantacije te izvrsna suradnja kardijalnih kirurga, kardiologa i perfuzionista.

Mechanical circulatory support with a continuous-flow left ventricular assist device (LVAD) is despite heart transplantation (HTx) and pharmacological therapy a valuable treatment option in end-stage heart failure.[1]

In this study we report results and outcomes of patients enrolled in the LVAD program established by the Department of Cardiac and Transplant Surgery and the Division of Cardiology of University Hospital Dubrava.

We retrospectively examined the outcomes from 18 LVAD recipients between October 2011 and October 2016. The mean recipient age was 56.6±13.0 years, and 61% were male. Dilated cardiomyopathy was present in 56% and ischemic in 44%. Two patients (11%) were INTERMACS 1 and other two INTERMACS 2, 6 (33%) were INTERMACS 3 and 8 patients (44%) were stage 4. Device implanted the most was HeartMate II in 11 patients (61%), followed by HeartWare in 5 cases (27%) and most recently HeartMate III in 3 patients (17%). Of our patients 50% were destination therapy (DT), 17% are considered to be bridge to decision, 11% are bridge to candidacy, while 4 patients were bridge to transplant (BTT). All patients in DT group were ineligible for HTx, except one who declined HTx. Of the BTT patients 2 finally underwent HTx. Overall survival at 30 days, 6 months and 1 year on LVAD was 88%, respectively. Both deaths occurred during postoperative care within one month after implantation due to severe right ventricular failure. During follow-up, NYHA functional class improved from 3.8 ± 0.3 to 2.1 ± 0.5 at 12 months.

Continuous-flow LVAD therapy is a viable treatment option for patients with end-stage heart failure ineligible for HTx or as a bridging strategy, with good survival and functional class improvement. An essential prerequisite for a successful LVAD program is careful selection and meticulous preparation of patients, as well as tight controls during follow up, and an excellent cooperation of cardiac surgeons, heart failure cardiologists and perfusionists.

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