Outpatient Clinical Follow Up of Children With Implantable Continuous Flow Ventricular Assist Devices: The Preliminary Experience from Ege University Hospital

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Introduction and Objectives: Shortage of donor hearts leads to increased waiting times on the transplant list. There is an urgent need for VAD systems that allow long-term support with low morbidity and minimal restrictions of the daily activities of Patients. With the development of implantable continuous flow VADs of the third generation, survival and quality of life have improved. In this study, we report our experience with outpatient follow up three children with continuous flow VAD (HeartWare). Our first case is the youngest patient among outpatient followed patients in Europe.  

Methods: In this retrospective study, we report our preliminary experience with continuous flow VAD. All of the patients were followed in outpatient clinics. Results: Between August 2012 and January 2013 three patients (2 girls, 1 boy; aged 7 to 13 years; weighted 18 to 44 kg) received continuous flow HeartWare VAD. All of the three patients had end stage heart failure due to dilated cardiomyopathy and under high dose positive inotropic support. All of the patients were extubated on postoperative first day. The duration of intensive care stay varied between 6 to 10 days. Patients were discharged from hospital 35 to 60 days after VAD implantation. All of the three patients are still under VAD support and waiting for Heart transplantation. On follow up our three patients, we make INR measurement twice in a week; physical examination including growth monitorization and echocardiographic and psychological evaluation every month. Early mobilization and discharge from the hospital decreased the risk of hospital infection. They can easily perform daily social activities and attend school. Their school performance are very good. Living with their families at home certainly decreases patients’s and their parents’s anxiety; the affect of the patients totally changed positively after discharge from the hospital. All of the patients gained weight. Conclusion: Implantable continuous flow device support offers a safe and comfortable alternative to paracorporeal systems for larger children with end stage heart failure. HeartWare system provide early mobilization of these patients and continue to perform their normal daily social activities.