Mid-Term Result of the Clinical Treatment for Pacemaker Infection with Vacuum-Assisted Wound Closure

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Background: Although pacemaker infection is a rare, but life-threatening complication, the optimal treatment is poorly defined. Methods: We describe 8 cases (7 patients), treated for an infected pacemaker at our institute between 2008 and 2011. The pacemaker pockets were fenestrated and treated with vacuum-assisted wound closure (VAC). Results: Infection was eradicated in seven cases without the need for aggressive surgery or removal of the intra-vascular lead. Fenestrated wounds in two cases were re-sutured without replacement of the entire pacemaker system. The others were implanted with new pacemakers in the contra-lateral side after removing the infected generator. However, in only a case, who had been operated for pacemaker implantation before 42days, VAC did not lead to eradicate the infection, and intra-vascular lead was removed using traction. A pacemaker became infected again in one patient nine months later. The VAC therapy was repeated and the infection was eradicated by removing the pacemaker generator but not the intra-vascular lead. The mean durations of VAC were 30.3 days, respectively. There is no evidence of recurrent infection for 14-38 months after discharge. Conclusions: Although complete removal of an infected pacemaker system is essential, less invasive VAC might serve as the first option for treating pacemaker infection when the risk of total system explantation is high. Keywords: infection, pacemaker, VAC