



Arrhythmias and Clinical EP

PERCUTANEOUS VACUUM-ASSISTED THROMBECTOMY DEVICE USED FOR REMOVAL OF LARGE VEGETATIONS ON INFECTED PACEMAKER AND DEFIBRILLATOR LEADS AS AN ADJUNCT TO LEAD EXTRACTION

Poster Contributions
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Background: Debate exists concerning the management of vegetations involving cardiac rhythm management (CRM) devices. Lead extraction is mandated for infections, but during extractions, vegetations may embolize, causing complications. Surgical debridement is recommended; alternatives include cardiopulmonary bypass or minimally invasive thoracotomy. This describes our first twelve patients, all critically ill with sepsis despite long-term antibiotics, and vegetations.

Methods: The AngioVac is a device that allows percutaneous right heart bypass and ability to suction vegetations under echocardiographic guidance. An inline filter traps debris while returning blood to the patient and maintaining hemodynamic stability.

Results: Patient and device characteristics are shown in the table. The average vegetation size was 3.7cm. Setup of the procedure averaged 10 minutes. One intraprocedural complication, an injury to an iliac vein, occurred and was repaired with a stent. All patients survived the procedure and resolved their infections. The average length of stay was 3.6 days. One patient stayed an extra three days to have an unrelated procedure. Another was a Jehovah’s Witness; the patient had preoperative and postoperative hemoglobin levels of 9 and 3 mg/dL, contributing to the extended length of stay.

Conclusions: The AngioVac system has thus far been shown to be safe and effective in adjunctive treatment of septic patients with large lead vegetations.

Patient and Device Characteristics			
Patient Characteristics			
	Age (years)	Vegetation Size (cm)	Length of Stay (days)
Range	59 - 93	2 - 6	2 - 8
Mean	80	3.7	3.7
Device Characteristics			
	BiVentricular Implantable Cardiac Defibrillator	Single Chamber Implantable Cardiac Defibrillator	Dual Chamber Pacemaker
# of Devices	4	1	7