

Threshold stability using active fixation LV lead

A. Diaz Exposito, A. Ruiz Salas, C. Medina, A. Barrera, J. Alzueta, J.J. Gomez Doblas

University Hospital Virgen de la Victoria, Malaga, Spain

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Introduction: The proper functioning of the CRT devices depends on the correct positioning of the electrodes, sometimes being compromised by the absence of suitable epicardial veins, leads instability or unacceptable high thresholds, among other. In 2017, a novel quadripolar active fixation LV lead was released with an innovative helical mechanism that expands to attach the lead within the vessel.

Objectives: Study the impact of the active fixation LV lead on threshold stability and dislocations.

Methods: We included 127 consecutive patients undergoing CRT between September 2017 to December 2019 in one hospital. They were randomly assigned: 62p active fixation VI leads vs 65p standard VI leads. LV thresholds, capture losses and dislocations were collected at standard pacing checks (1 week, 2 months, 6 months).

Results: The mean age of the sample was $73,9 \pm 8,4$ years. 75% patients were male and 48,4% suffered ischemic cardiomyopathy. The two groups were similar according to this variables. 5 (7.7%) dislocations were reported in the control group against 2 (3.2%) in the active fixation group (n.s). The mean threshold (V) at the moment of the implant was 1,4 in the active fixation vs 1,41 in the standard LV leads; at the first visit 1,55 vs 1,99; at two months 1,59 vs 2,13 and at six months 1,74 vs 2,48. The threshold stability is shown in Figure 1.

Conclusions:

- The active fixation LV lead provides higher threshold stability than the conventional one.
- There is a non-significant tendency to reduce dislocations.

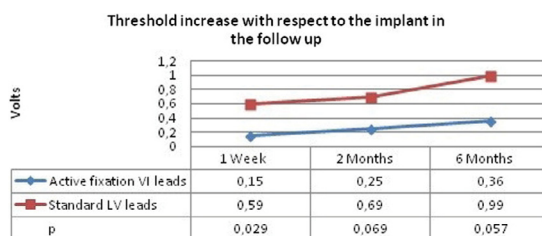


Figure 1