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**– WHAT CAN THE IMPLANTER DO
TO MAKE LEAD EXTRACTION
EASIER**

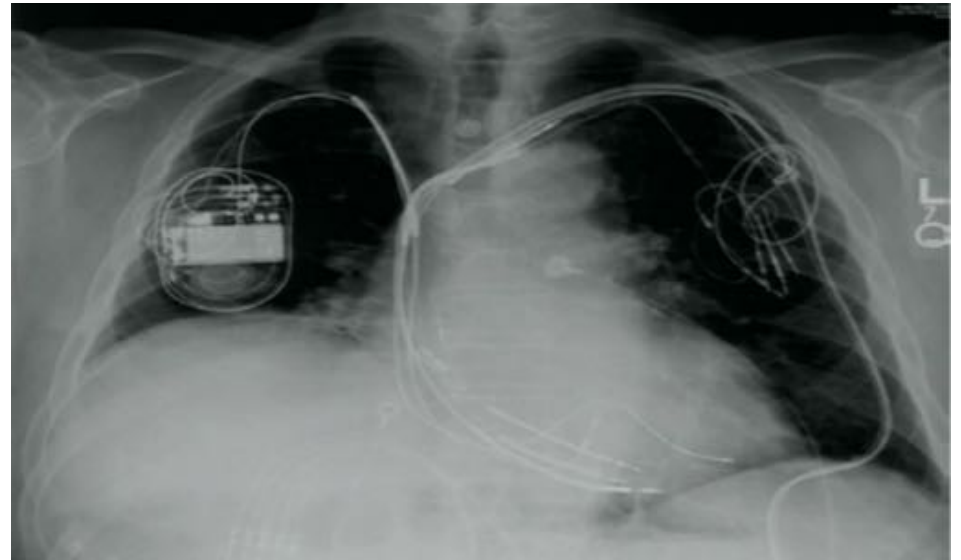
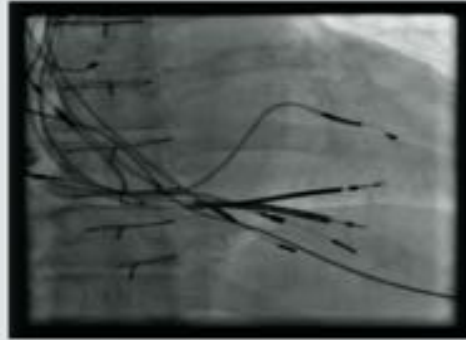
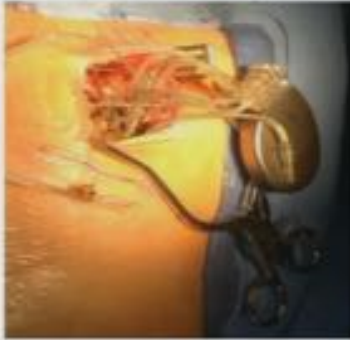
FIRST:

**DON'T MAKE
WRONG THINGS**

CIED COMPLICATION MANAGEMENT

RISK FACTORS OF TLE COMPLICATIONS

Superfluous Leads??



LEAD CHOICE

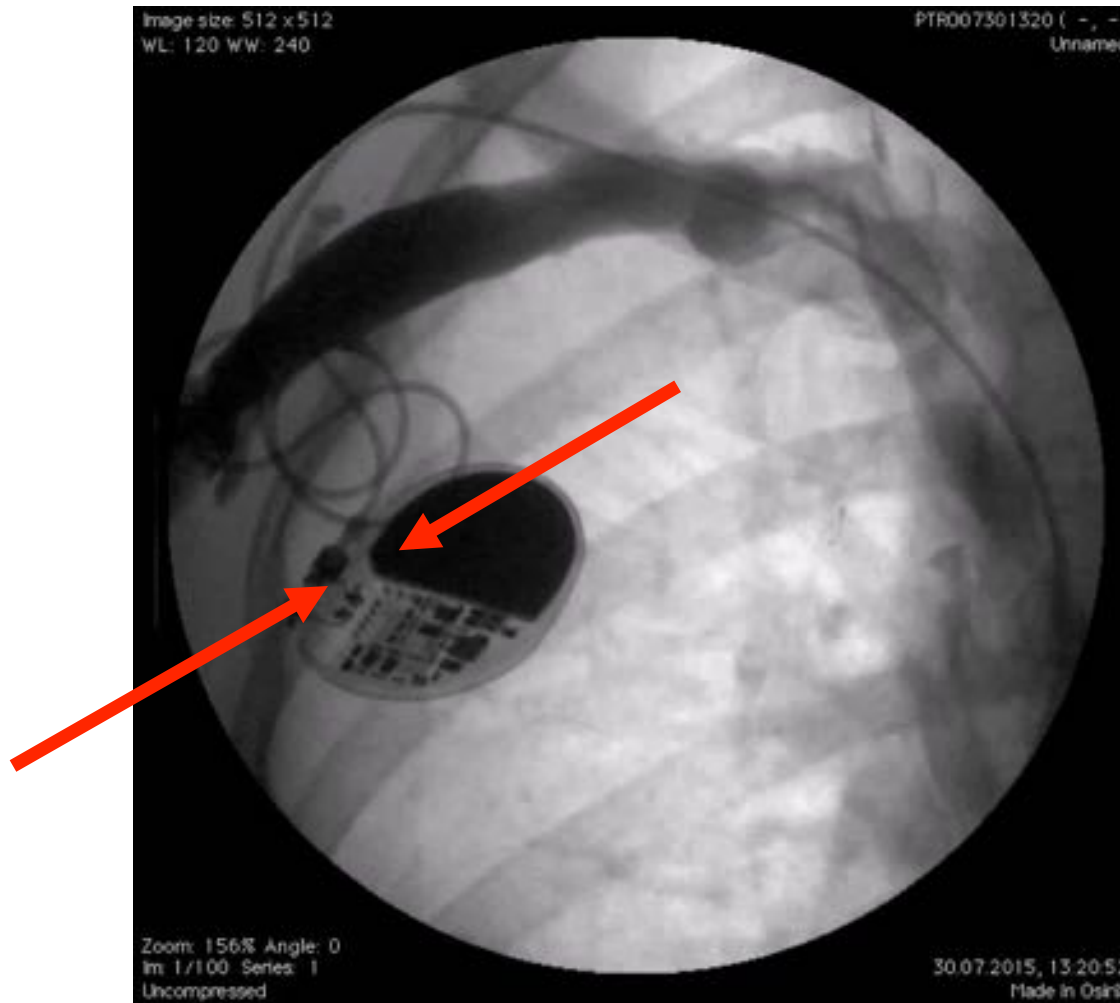
RELIABLE LEAD – SJM RIATA



Mitkowski et al. (non published)

FRIEND NOT ALWAYS MEAN FRIEND

COOPERATION: SURGERY & CARDIOLOGY

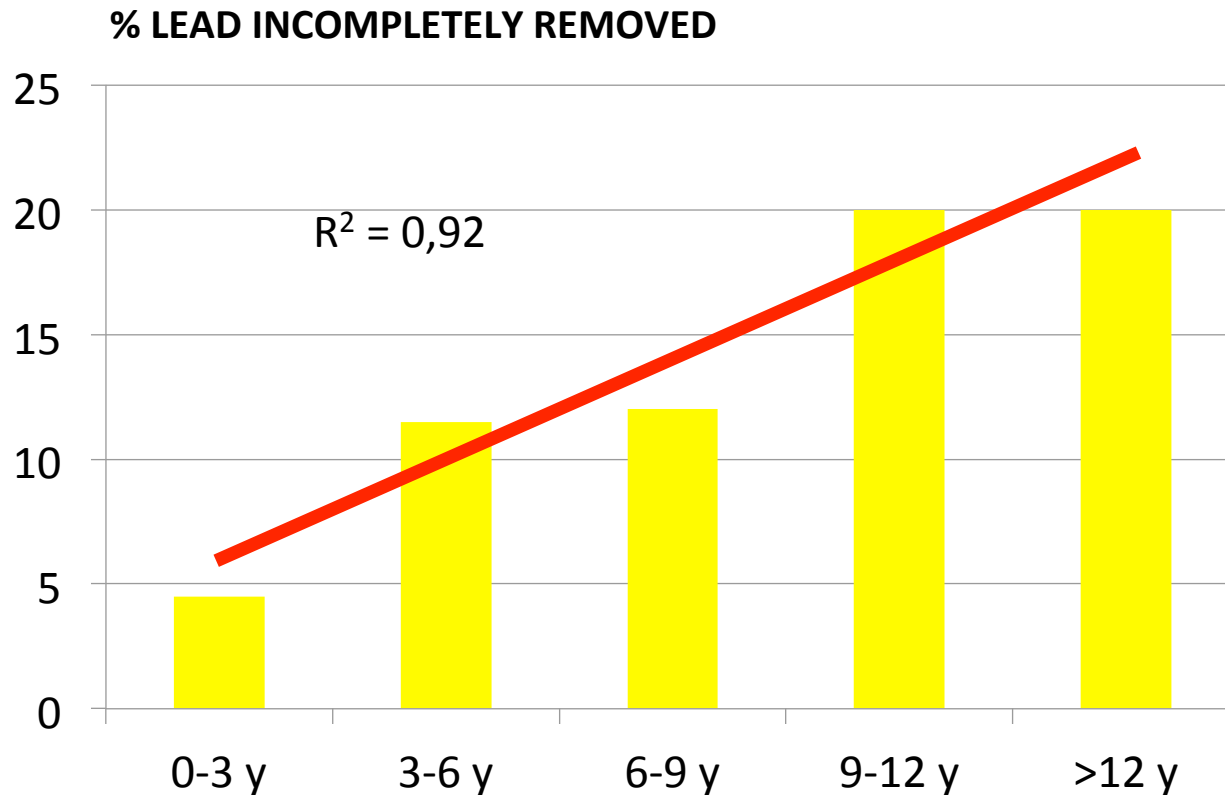


CIED COMPLICATION MANAGEMENT

RISK FACTORS OF TLE COMPLICATIONS

TIME FROM IMPLANTATION

145 leads + 7 patch leads, 84,2% percutaneous extraction, procedural success – 86,2%



IMPLANTING TECHNIQUE

RISK FACTORS OF TLE COMPLICATIONS

212 PT, 456 LEADS, FU 30 DAYS

COMPLICATIONS: 26 (11.8%); MAJOR: 9 (4.2%)

	Odds Ratio (95% CI)	P Value
Any complications		
Number of RV leads extracted	3.51 (1.30–9.46)	0.013
Defibrillator (vs pacemaker)	2.57 (0.99–6.68)	0.053
Right-sided lead explantation	2.85 (0.74–5.62)	0.165
Major complications		
History of open-heart surgery	0.11 (0.01–0.99)	0.049
WBC (per 1,000 increase/mm ²)	1.46 (1.11–1.94)	<0.001
Right-sided lead explantation	5.03 (0.71–35.59)	0.106
Use of laser-powered sheaths		
Age of oldest extracted lead (per year increase)	1.49 (1.22–1.81)	<0.001
Age of patient (per year increase)	1.00 (0.97–1.02)	0.897
Gender (woman vs man)	0.65 (0.24–1.73)	0.391
Number of leads extracted (per one lead increase)	1.17 (0.68–2.00)	0.576
Defibrillator (vs pacemaker)	1.65 (0.66–4.13)	0.286

CIED COMPLICATION MANAGEMENT

RISK FACTORS OF TLE COMPLICATIONS

Significant risk factors of major TLE related complications			
Patient / system / previous procedures / TLE procedure related factors	With major complications	Without major complications	p**
Number of patients	28	1739	-
Sex (% of female patients)	19 (67.9%)	678 (38.9%)	0.002
Mean leads body dwelling time	152,3 ± 83,6	83,7 ± 62,8	<0,001
Dwell time of the oldest one extracted lead in the pt.	179,0 ± 85,3	86,9 ± 66,2	<0,001
Both (R&L) chest side lead extraction	3 (10,7%)	28 (1,6%)	<0,001
Number of leads in heart before lead extraction	2,36 ± 0,87	1,97 ± 0,79	0,01
Number of extracted leads in one patient	2,17 ± 1,42	1,67 ± 0,78	0,001
PM UP lead extraction	12/57 (21.0%)	285/2906 (9.8%)	0,007
Number of system related previous procedures	3,25 ± 1,62	1,86 ± 1,14	<0,001
Number of abandoned leads	0,68 ± 1,12	0,21 ± 0,54	<0,001
2 or more abandoned lead	7 (25,0%)	87 (5,0%)	<0,001

PACEMAKER/ICD IMPLANTATION

LEAD MANAGEMENT

PATIENT

MANAGEMENT