

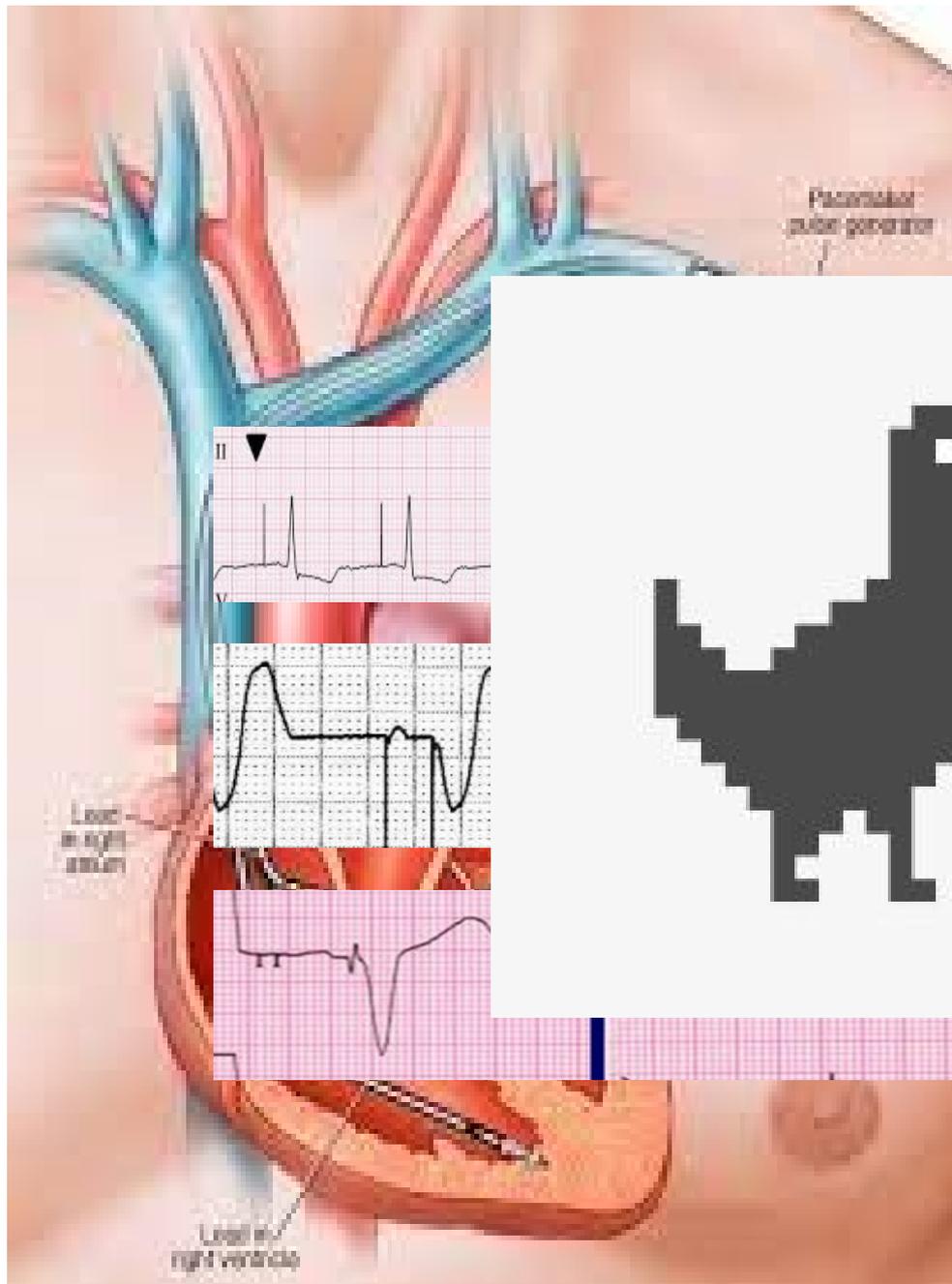
HOT TOPICS IN CARDIOLOGIA 2024

27 e 28 Novembre 2024

Villa Doria D'Angri - Via F. Petrarca 60,
Napoli

Stimolazione fisiologica
del tessuto di
conduzione: quando e
perché

Dott. Valerio Giordano



ione convenzionale:

lo camera atriale

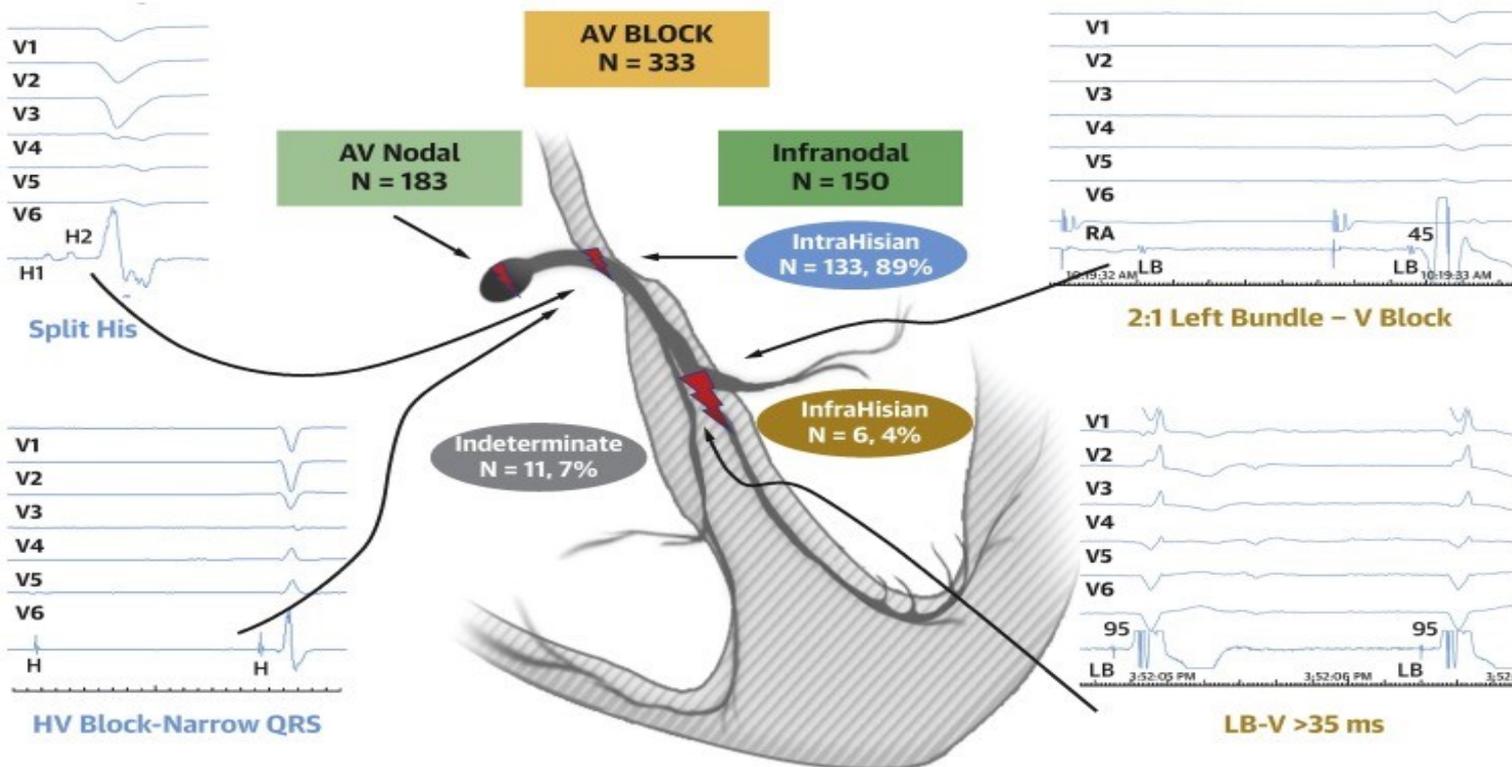
o camera
re destra (setto-

o in seno
coronarico (CRT)

Bibliografia:

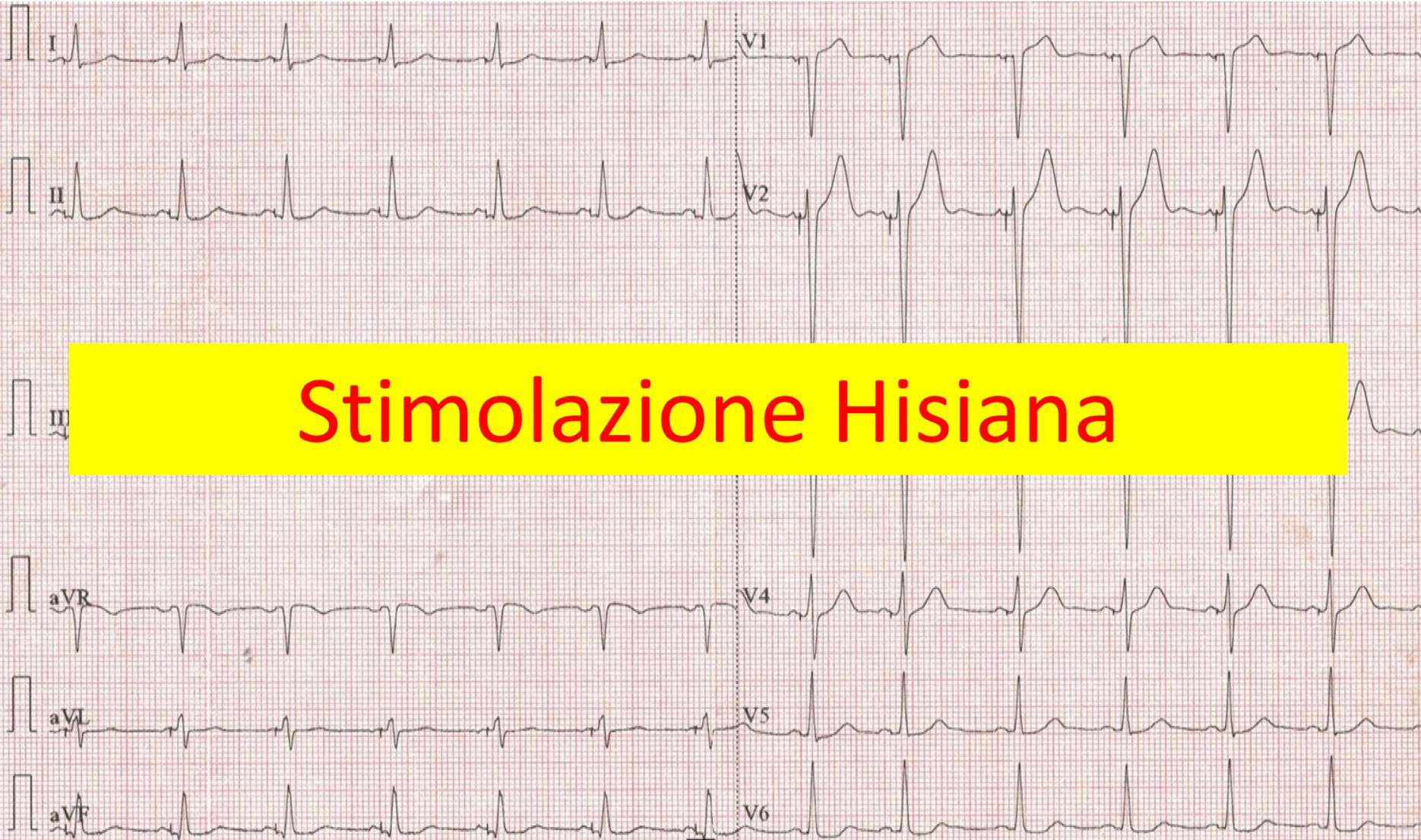
1. Desmukh P, Casavant DA, Romanyshyn M, et al. Permanent, direct His-bundle pacing: a novel approach to cardiac pacing in patients with normal His-Purkinje activation. *Circulation* 2000; 101: 868-877.
2. Burri H, Keene D, Whinnett Z, Zanon F. Device programming for his bundle pacing. *Circulation: Arrhythmia and Electrophysiology* 2019; 2:e006816.

CENTRAL ILLUSTRATION: His-Purkinje Conduction System Pacing in Atrioventricular Block

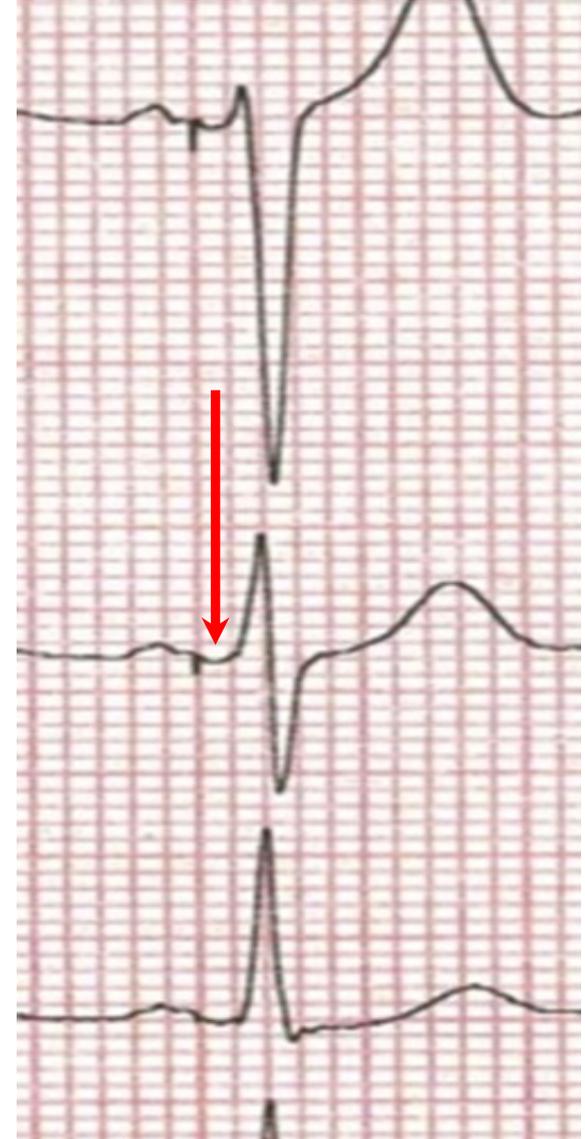
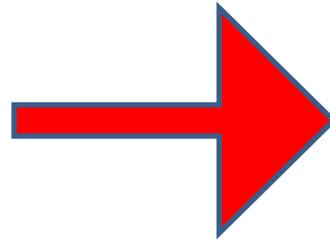
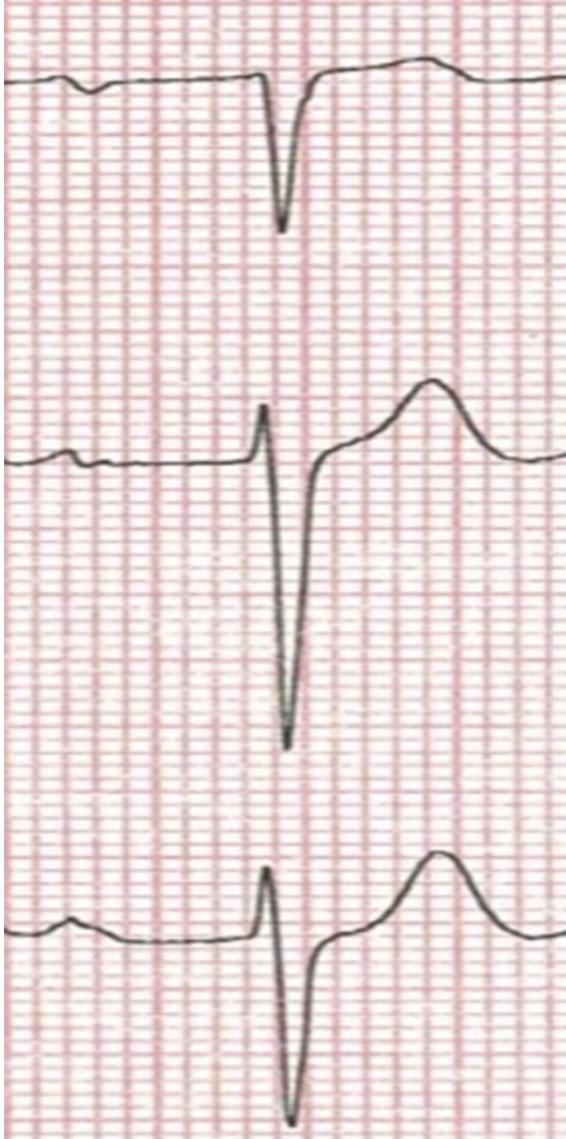


Vijayaraman, P. et al. *J Am Coll Cardiol EP*. 2022;8(1):73-85.

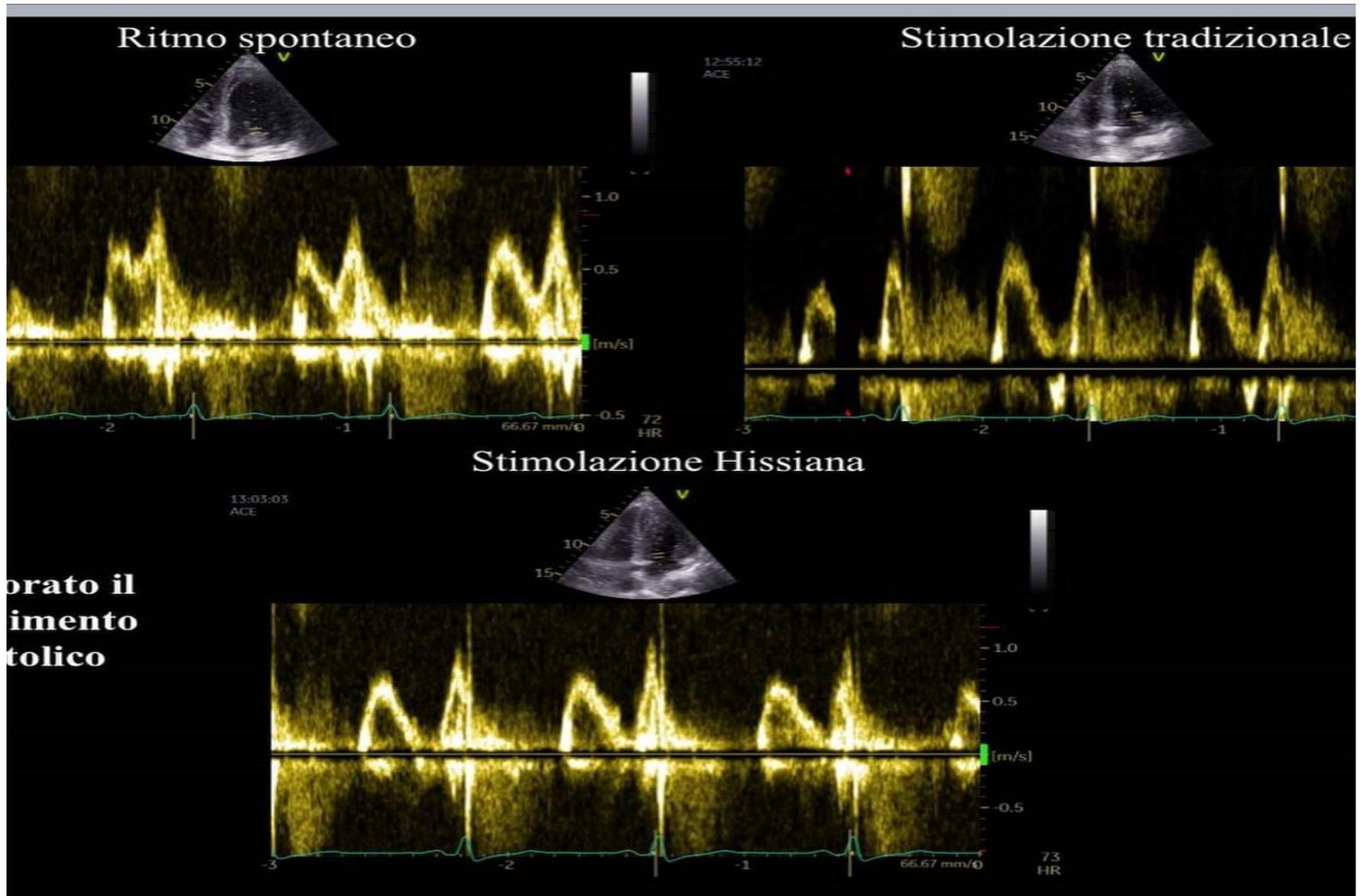
Stimolazione Hisiana



Guardiamo più da vicino...



Tutto questo si traduce in questo:



Limiti della stimolazione Hisiana:

- Difficoltà di esecuzione
- Durata della procedura
- Frequente dislocazione elettrocatetere
- Sede del Blocco Atrio-Ventricolare

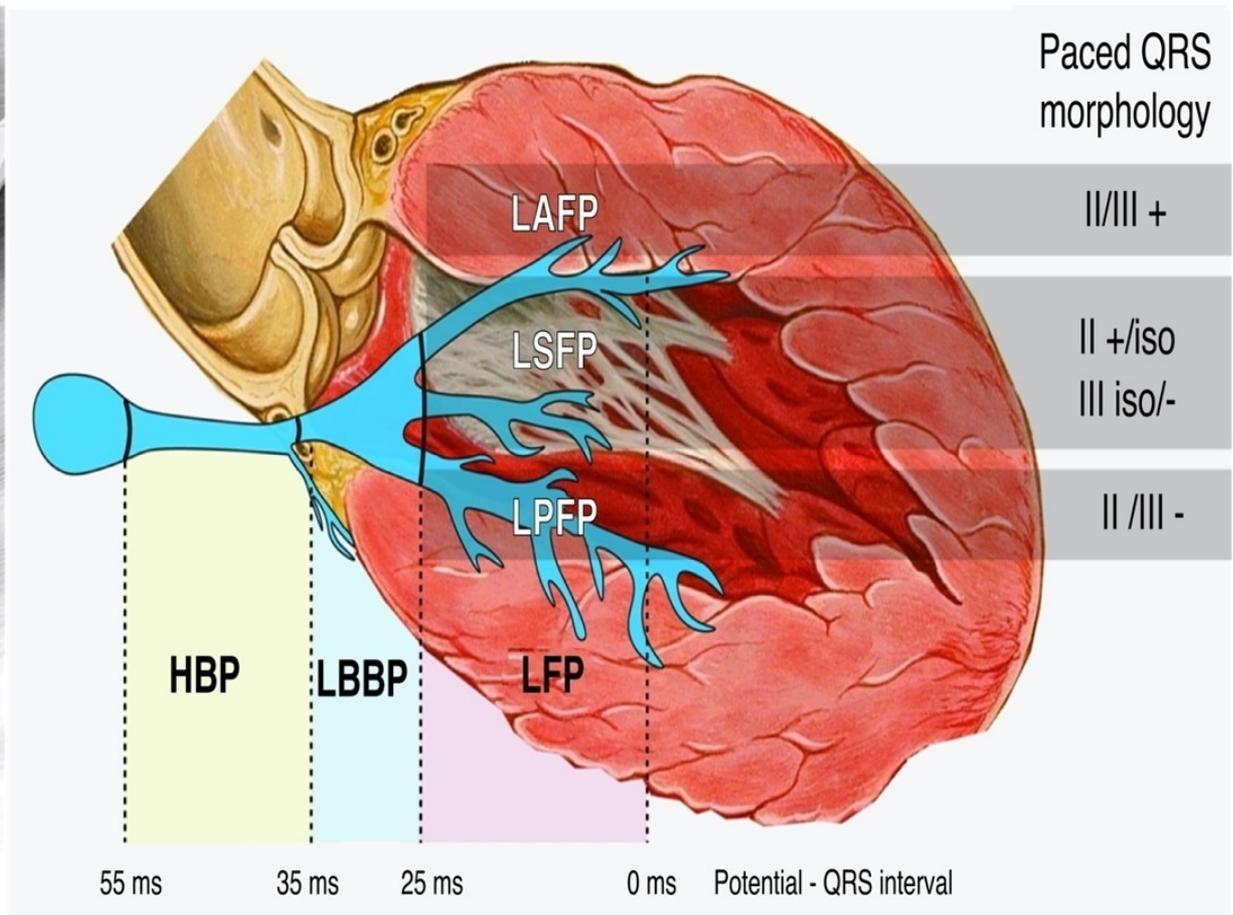
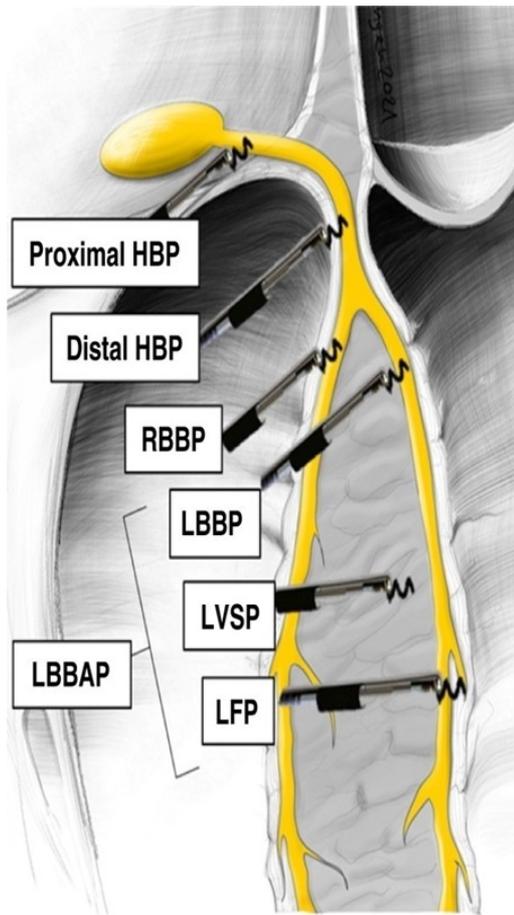
Stimolazione branca sinistra del sistema di conduzione (LBBP)

Vantaggi:

- Durata più breve della procedura
- Minori o assenti dislocazioni di elettrocatteter
- Relativa non importanza della sede del blocco

Limiti:

- Sede del blocco della branca sinistra
- Futura eventuale estrazione



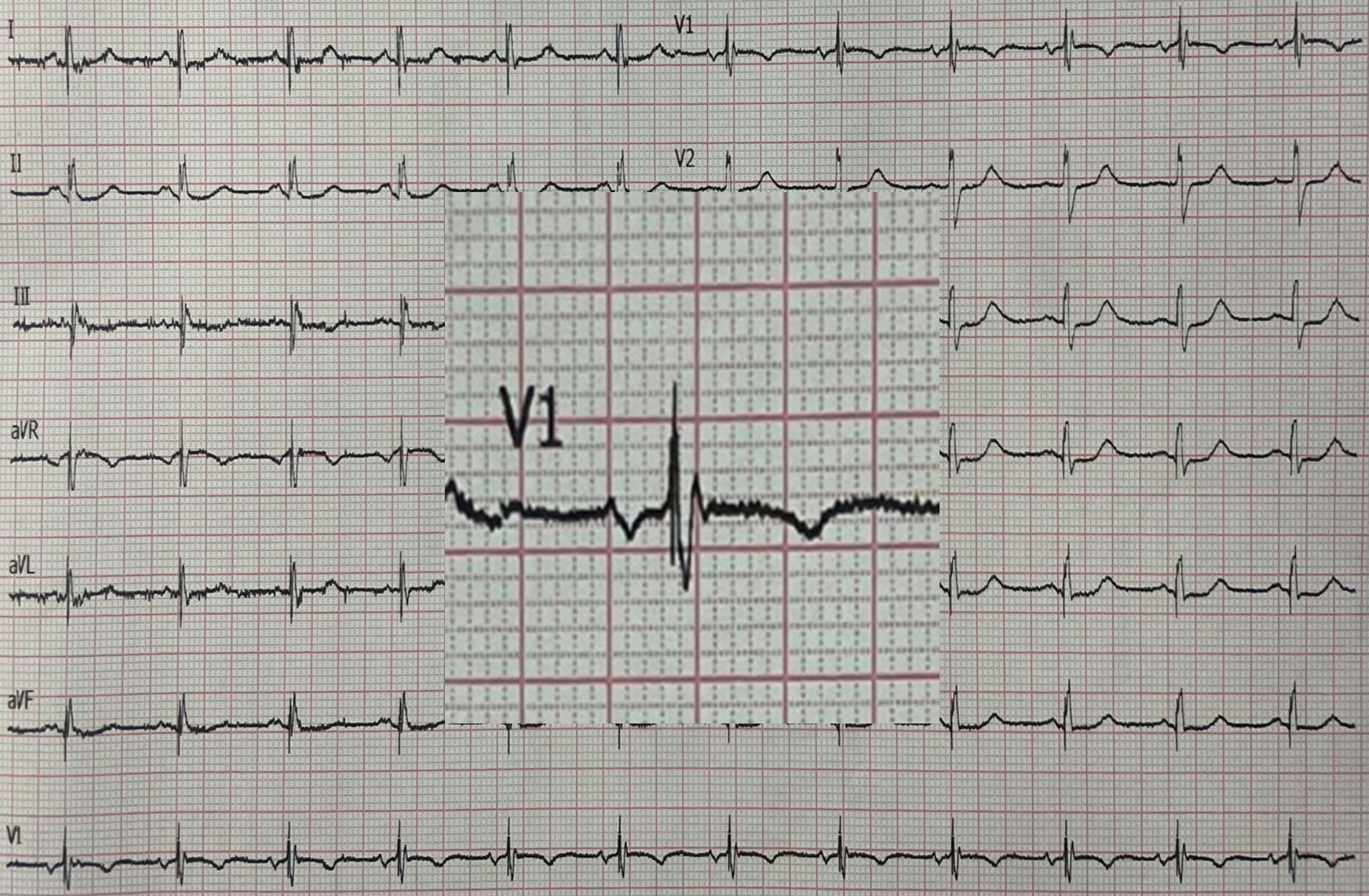
Categories of conduction system pacing. Anatomical position of the pacing lead, potential to QRS interval (if visualized), and paced QRS morphology in leads II and III are used to determine the level of CSP. RBBP and LVSP are not shown on the right panel. HBP = His bundle pacing; iso = isoelectric; LAFP = left anterior fascicle pacing; LBBAP = left bundle branch area pacing; LBBP = left bundle branch pacing; LFP = left fascicular pacing; LPFP = left posterior fascicle pacing; LSFP = left septal fascicle pacing; LVSP = left ventricular septal pacing; RBBP = right bundle branch pacing. Modified with permission from Filip Plesinger and from Jastrzebski *et al.*⁷

Procedura: durante stimolazione unipolare
individuazione del miglior sito di fissaggio
dell'elettrocattetero.



Comparsa di pattern di stimolazione a BBdx post avvitamento elettrocatetere





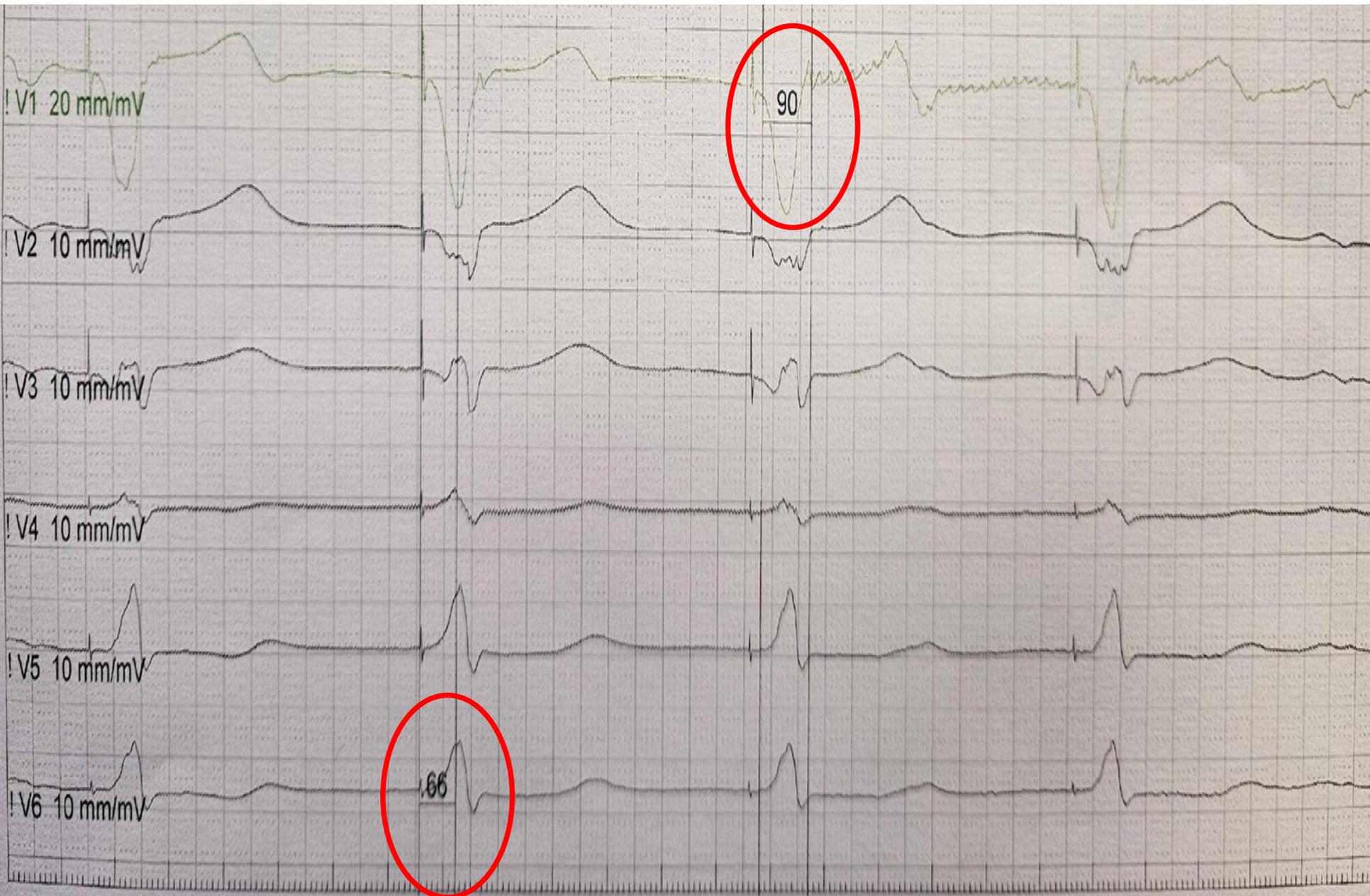
Non confrmt

25 mm/s 10 mm/mV

SAD 0.56 100 Hz 50 Hz

2.5-6.25 P1

1/1



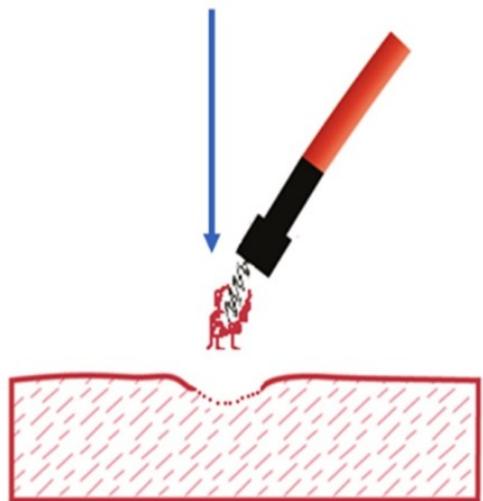
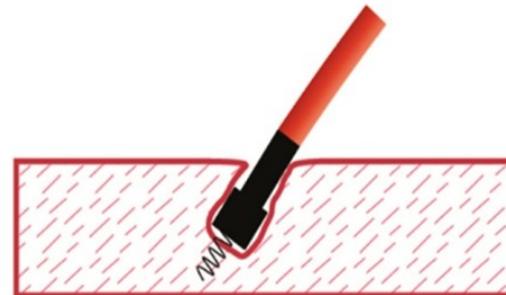
Entanglement



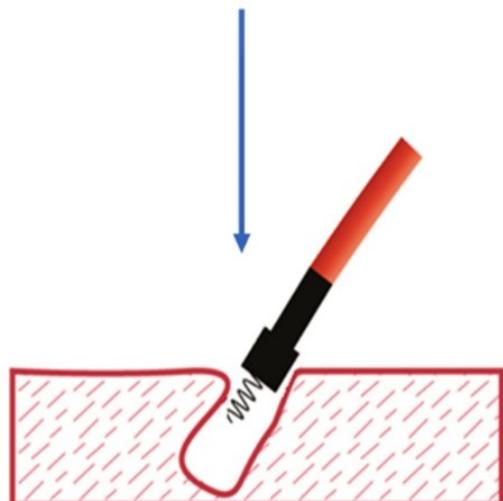
Drill



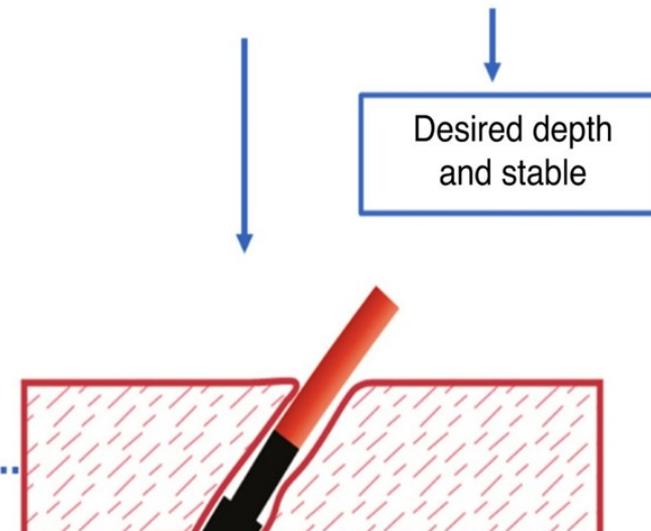
Screwdriver



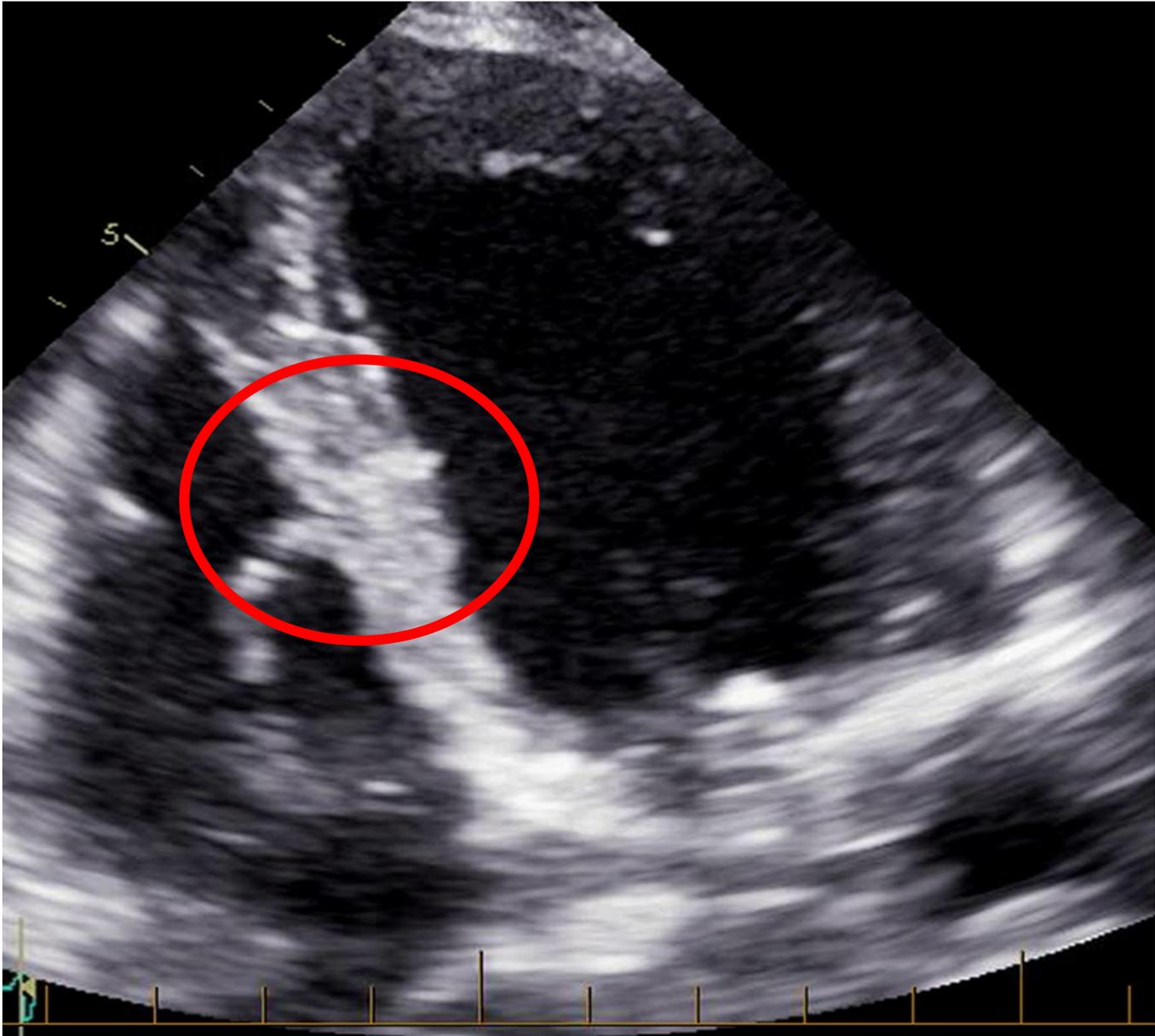
Lead damage or entrapment



Micro-or macro-dislodgment



Partial or overt perforation



La nostra esperienza

Impianti PMK-ICD con LBBP: 203

Dislocazioni elettocat.: 0

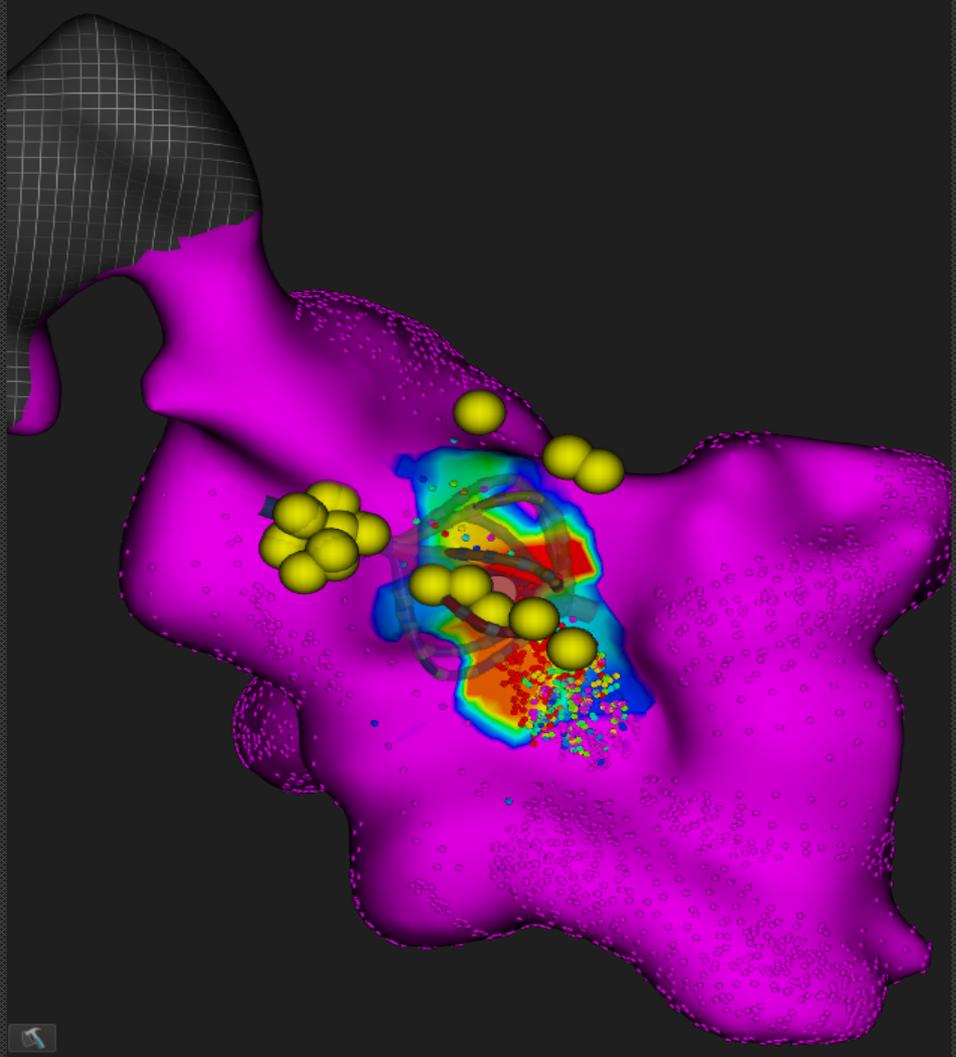
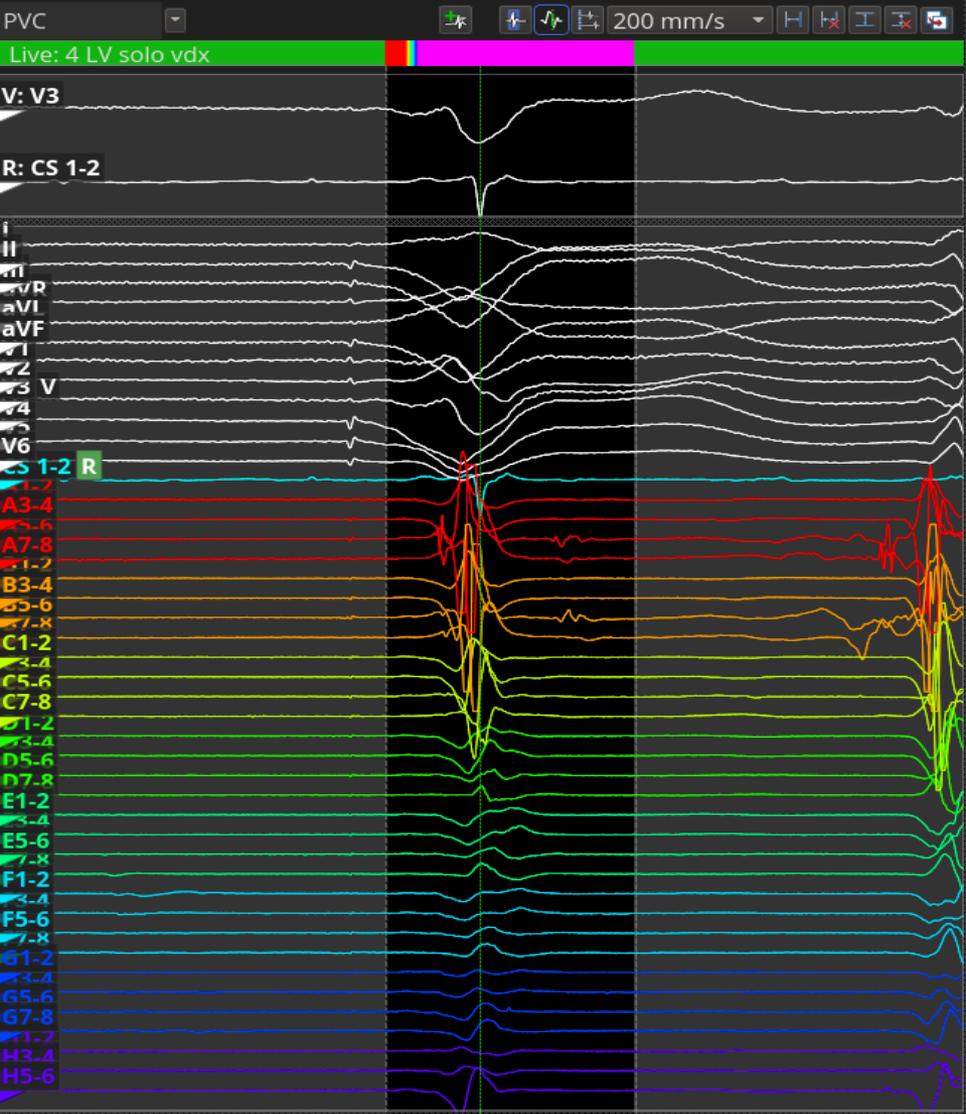
Perforazioni: 4

CL: 1062ms BPM: 56

3 LV solo bra...

-61 ms -53 ms -75 ms 97 ms

B.Time LUMI



Show Beat Acceptance Criteria All

Reject Accept

- Auto
- *
- INF
- SUP
- RL
- LL
- RAO
- LAO
- PA
- AP



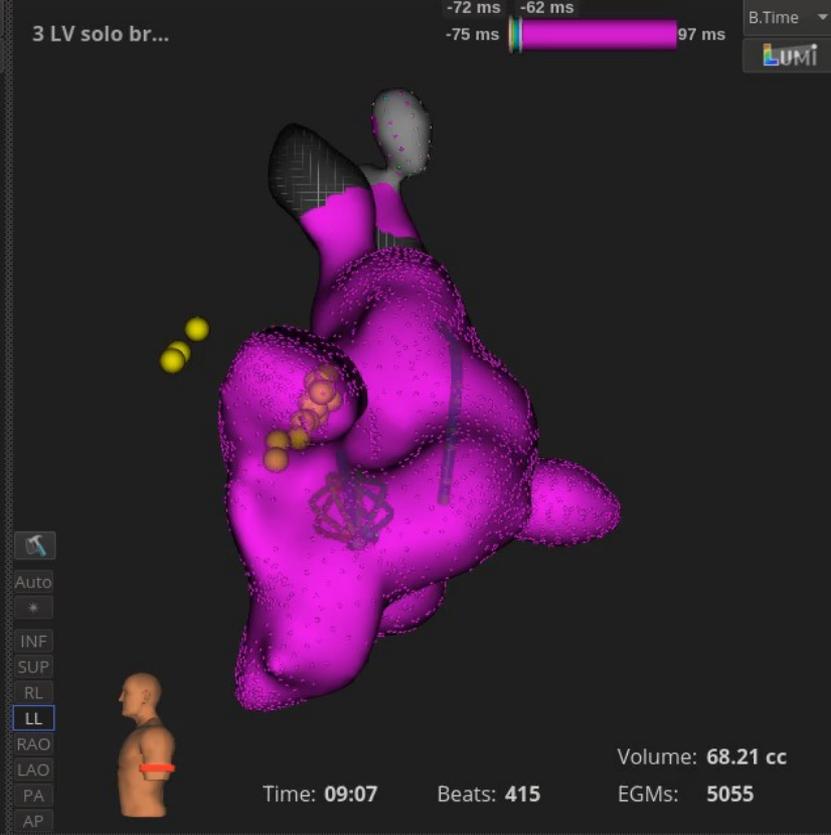
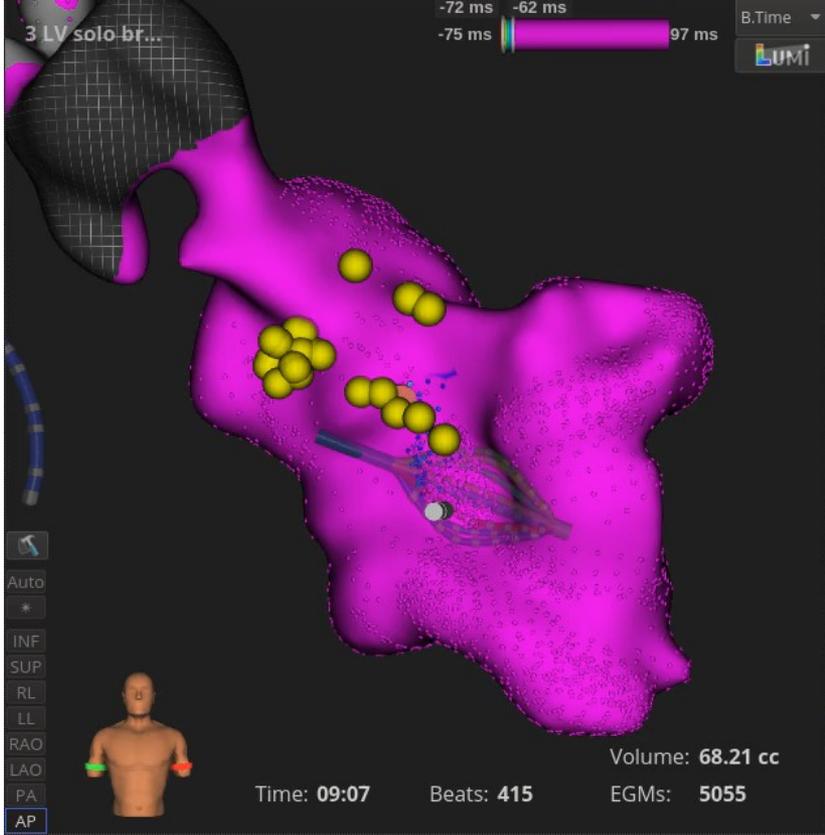
Time: 09:07

Beats: 415

Volume: 68.21 cc

EGMs: 5055

Slow/Fa



Take home messages

- Il pacing del sistema di conduzione rappresenta insieme alla stimolazione “leadless” il futuro (già presente) dell'elettrostimolazione cardiaca.
- Rappresenta una procedura sicura, anche se molto “operatore-dipendente”.
- LBBP al momento si preferisce alla stimolazione Hisiana.
- Non basta riuscire a stimolare la branca sinistra, ma bisogna farlo nel miglior modo possibile e cercando risultati ECGgrafici ottimali.
- Non stiamo parlando di una “cosmesi” dell'ECG, il beneficio è REALE.

