

Storm Aritmico

Ruolo e timing dell'ablazione nel paziente instabile

Dr. Andrea Radinovic

Aritmologia ed Elettrofisiologia Cardiaca

Ospedale San Raffaele

Milano



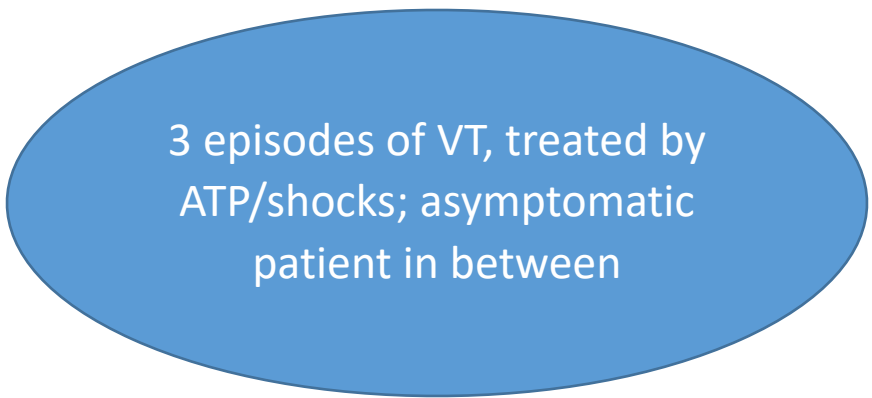
Background

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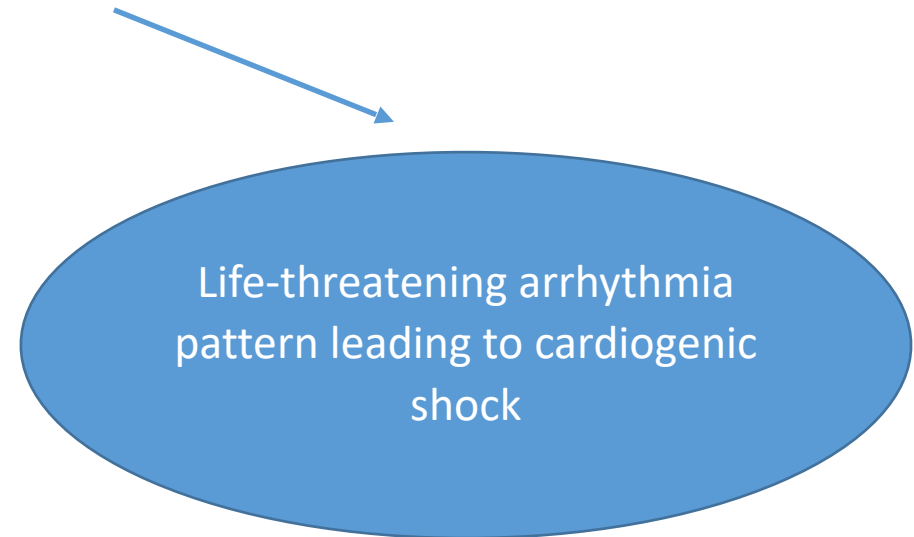
3 episodes of VT, treated by
ATP/shocks; asymptomatic
patient in between

Timing is not an issue as ablation
can be scheduled properly

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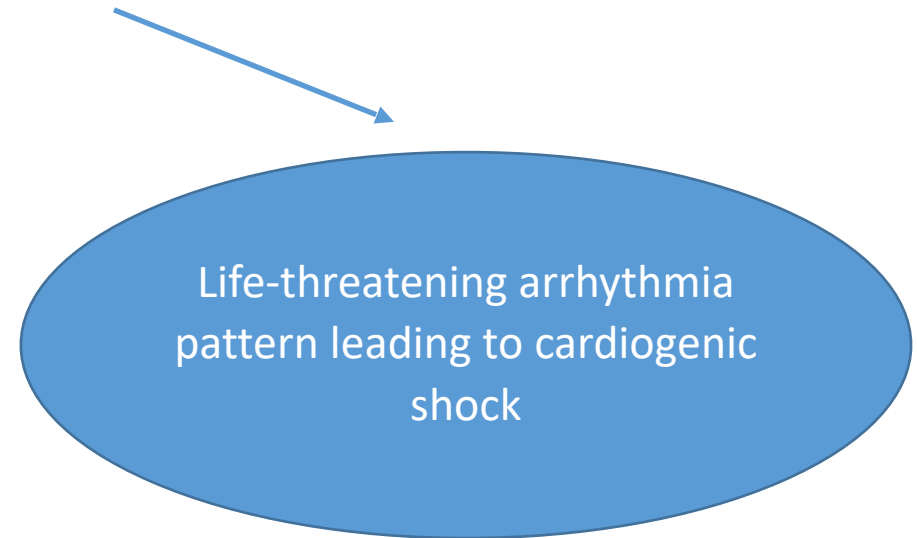
The real life-threatening arrhythmia pattern leads to conflicting attitudes



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Generally, the earlier a regular rhythm is restored, the better; on the other hand, rushing to the EP laboratory prevents the appropriate triage and risk stratification to avoid acute heart failure during the procedure



Is there a unique «ablation timing»?

ES ablation timing requires a careful evaluation of the complex interplay between arrhythmia pattern and hemodynamic instability that follows

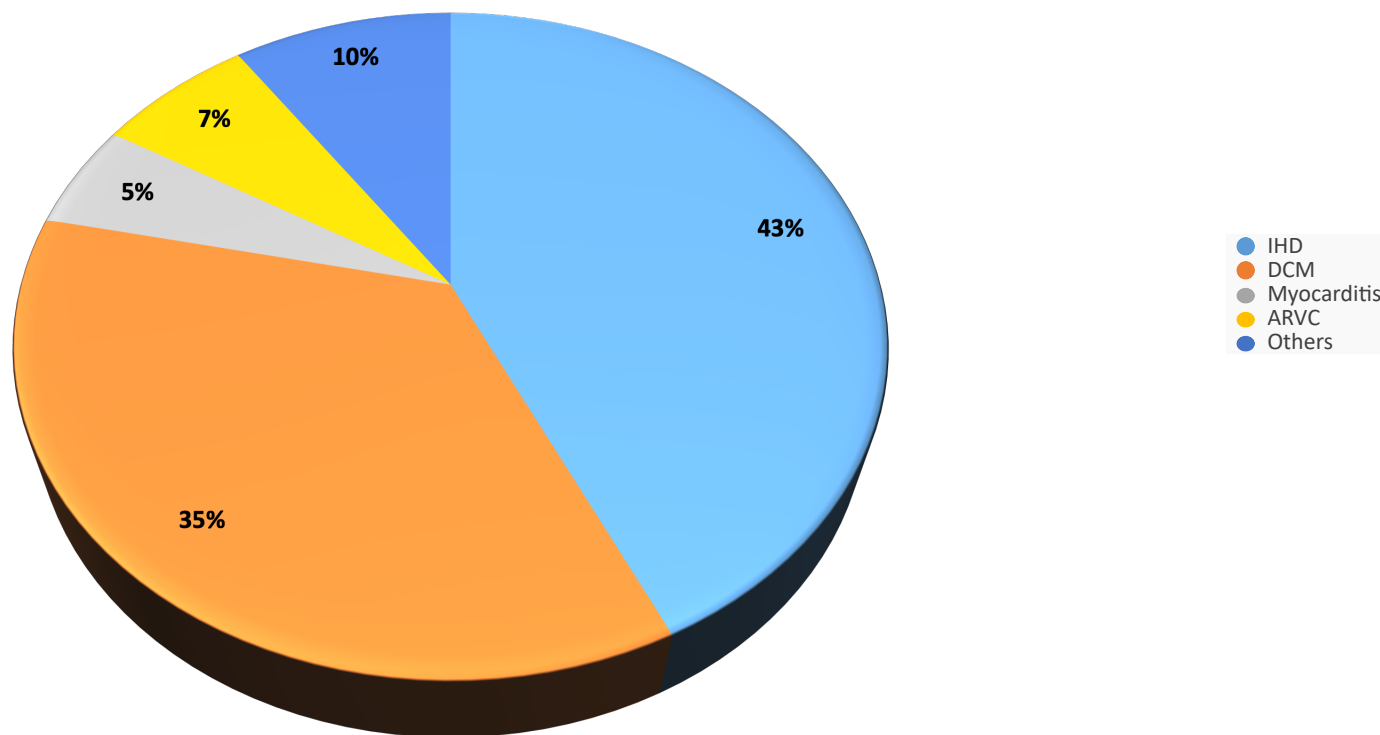
- Preferred option: deferring the ablation to achieve arrhythmia control and hemodynamic stabilization, to appropriately plan the procedure
- Emergency ablation: if strategies of rhythm stabilization fail and/or hemodynamic instability worsens in a short time (24 h)

Catheter ablation of Electrical Storm

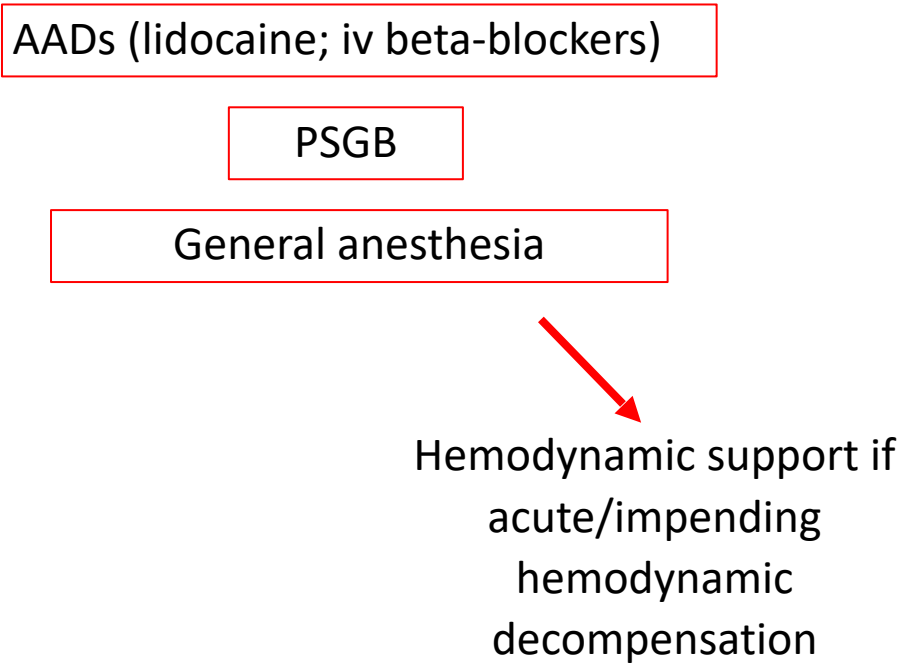
Hospital San Raffaele (2010-2025)

559 procedures in 419 pts

Etiology



Acute management of in-hospital, refractory ES-OSR (2010-2025): 88 patients (15.7%)



Male, N (%)	84 (95)
LVEF, mean+SD	28±6
NYHA III-IV, N, (%)	53 (60.2)
Post-MI, N, (%)	39 (44)
DCM, N, (%)	35 (40)
Myocarditis, N, (%)	2 (2.4)
ARVC, N, (%)	3 (3.4)
Others, N, (%)	9 (10.2)
MHS pre-procedure, N, (%)	35 (40)
Previous ablation, N,(%)	56 (63.6)
Amio, N, (%)	52 (59)
Class I, N, (%)	37 (42)
Mean ICU stay, days	8±3.5

Indications to emergency procedure

Mean hours to procedure: 21.6 ±12

Cooled ES: 31 pts

Mean hours to procedure: 9.2±7.6

Refractory ES/incessant VT with no acute
hemodynamic impairment: 24 pts

Mean hours to procedure: 27±12.3

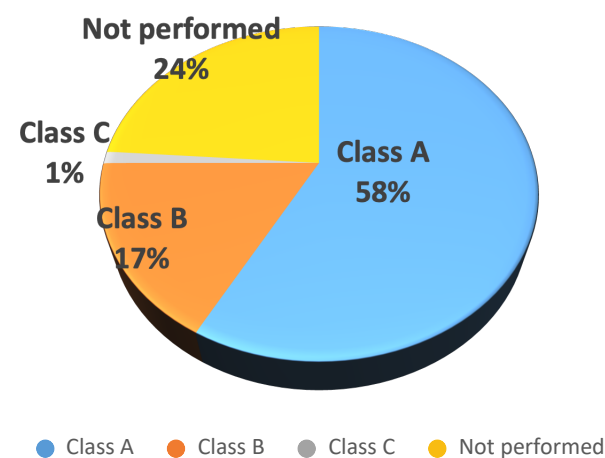
Cooled ES/impending AHF: 19

Mean hours to procedure: 36±17.6

ES complicated by cardiogenic shock:
13 pts

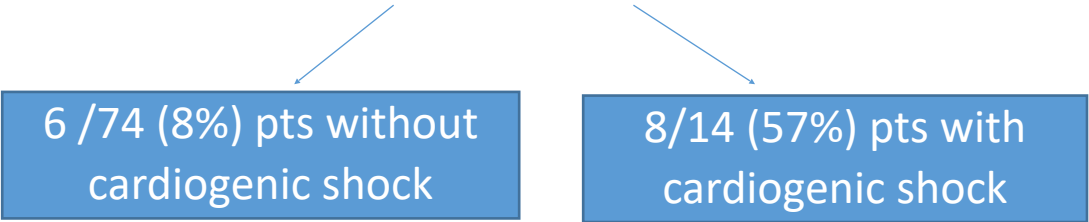
Acute procedure outcome

Acute procedure outcome according to PVS



Non-tolerated VTs	28/88 (32)
At least partial VT activation mapping	82/88 (93)
Clinical VT terminated during RF	65/88 (74)
In-hospital recurrence (REDO)	4/88 (4,5)
In hospital ES recurrence	3/88 (3,4)
in hospital VT recurrence	1/88 (1,1)
In-hospital Death	14/88 (16)
Major complications	8/88 (9)

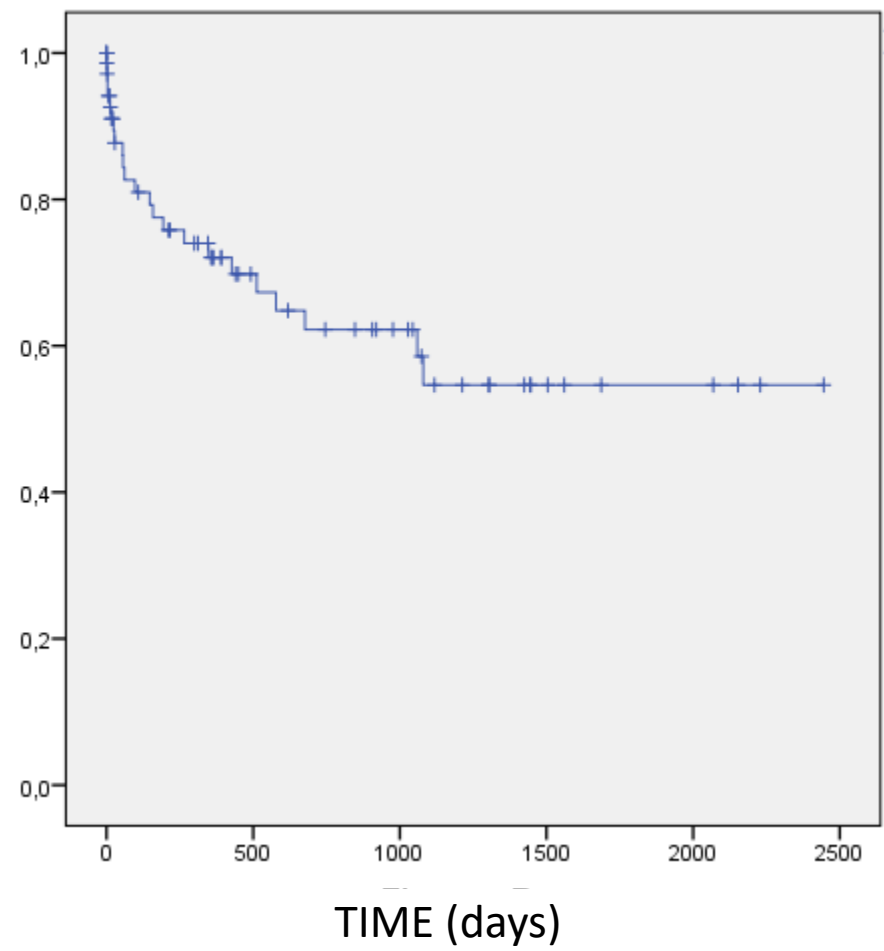
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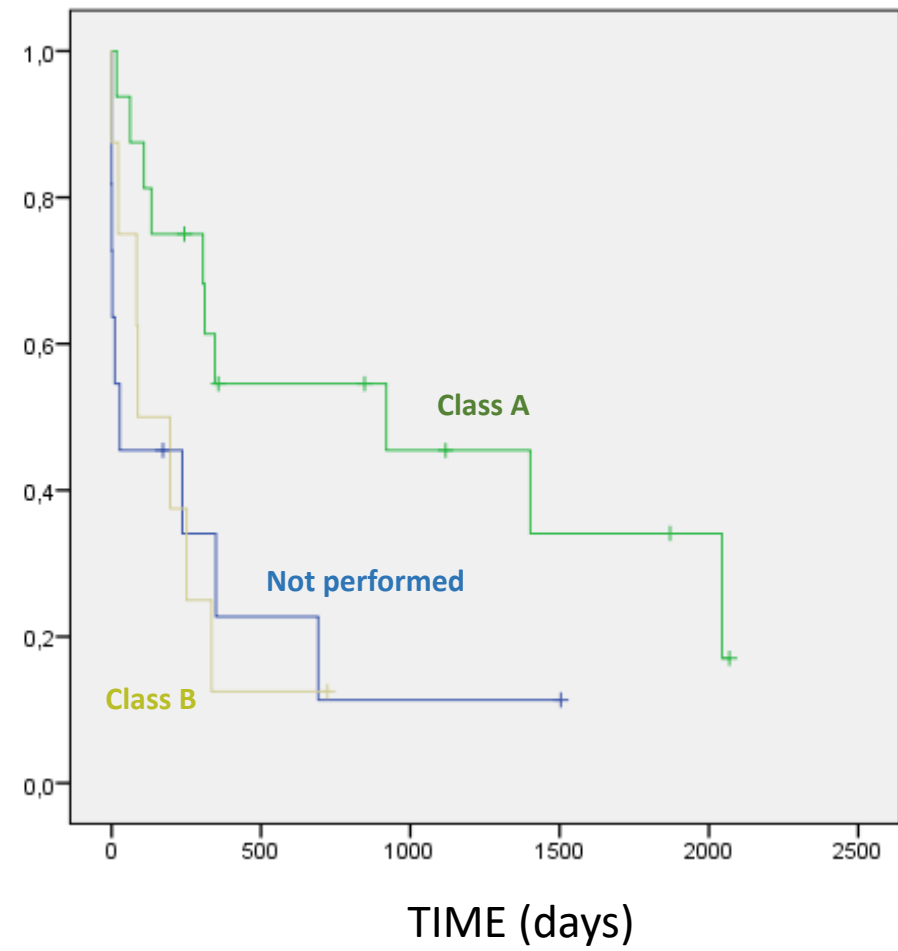
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Long term FU: overall

VT recurrence



Death



Conclusions

- As ES is usually heralded by frequent VT recurrences, early VT ablation is a mainstay of treatment
- The actual definition of ES is misleading, as it pools in the same definition markedly different clinical presentations
- True ES requires a highly dedicated multiskilled institution, aiming at achieving hemodynamic stabilization before the ablation
- The onset of AHF is an indication to shorten at earlier stages, but is associated with a higher mortality