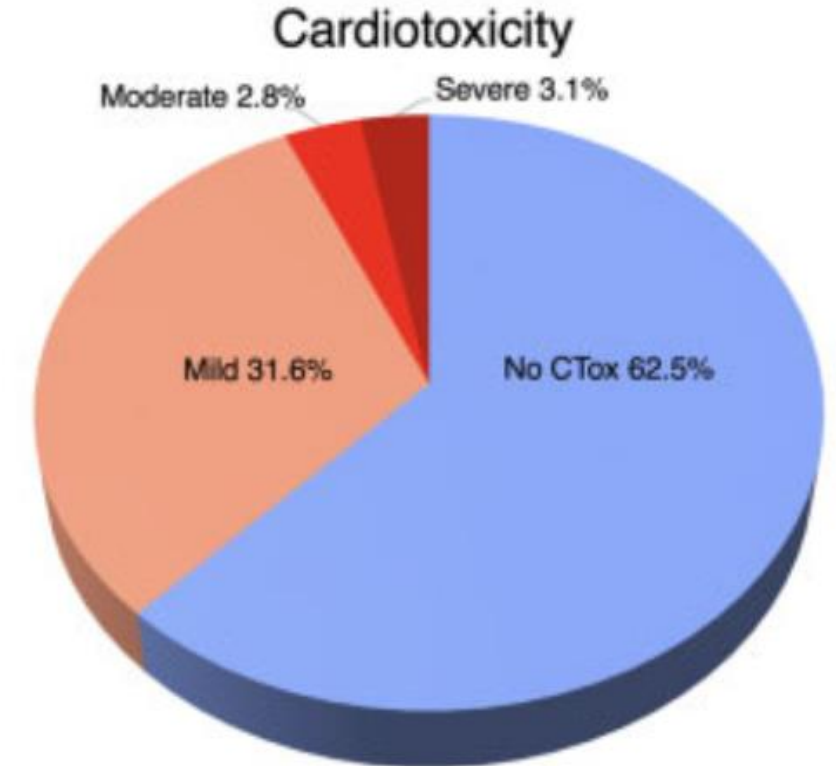
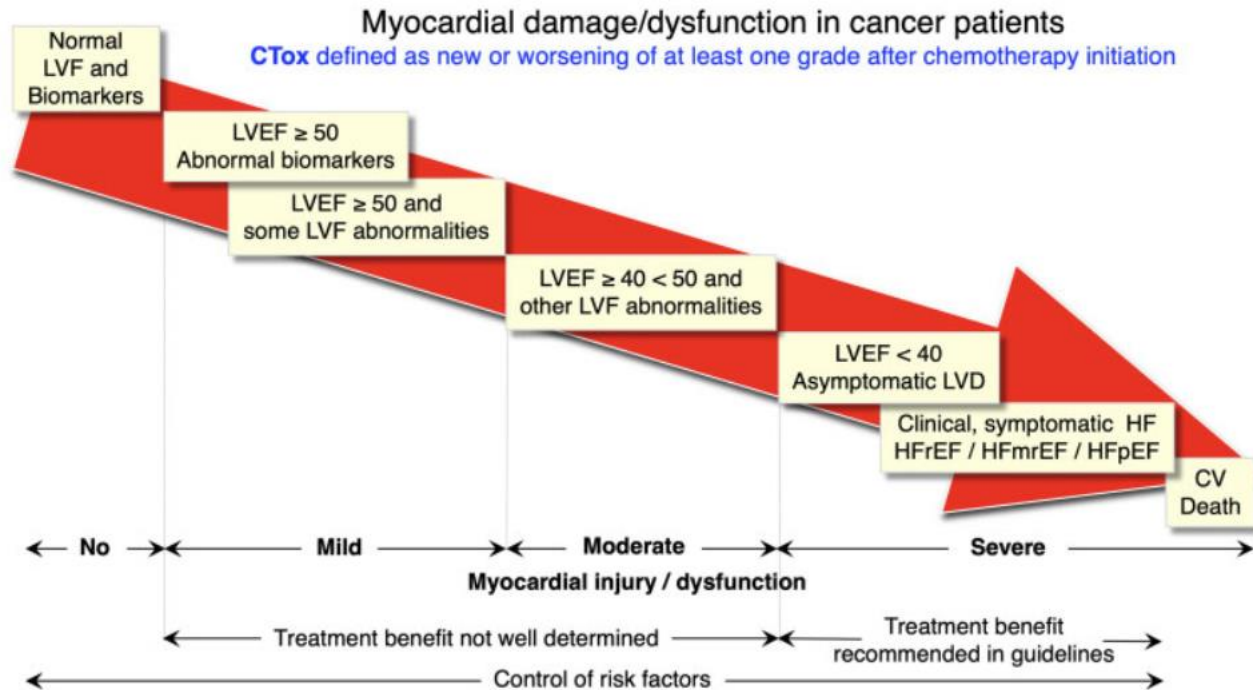


"Lo mejor de la reunión Virtual Cardio-Oncology Summit. V-COS 2020"

La visión del cardiólogo clínico. PARTE 2

Eduardo Zatarain Nicolás, MD, PhD.

Translación en cardio-oncología



Translación en cardio-oncología

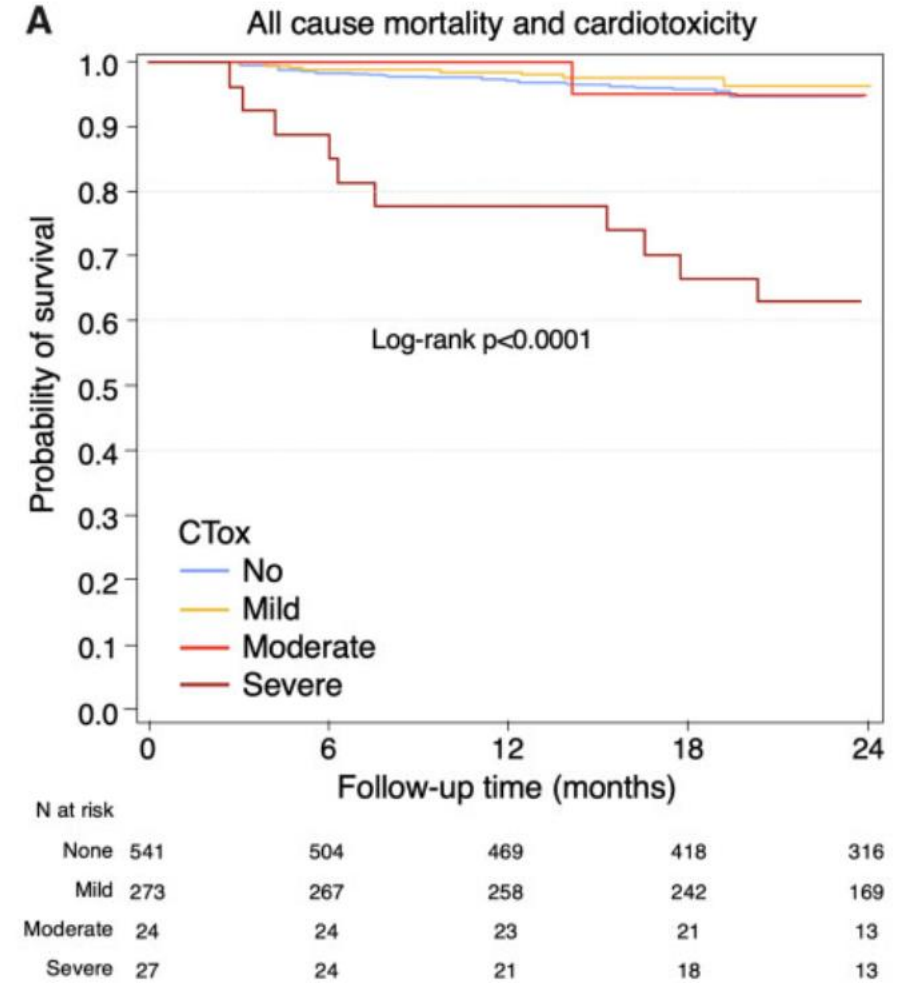
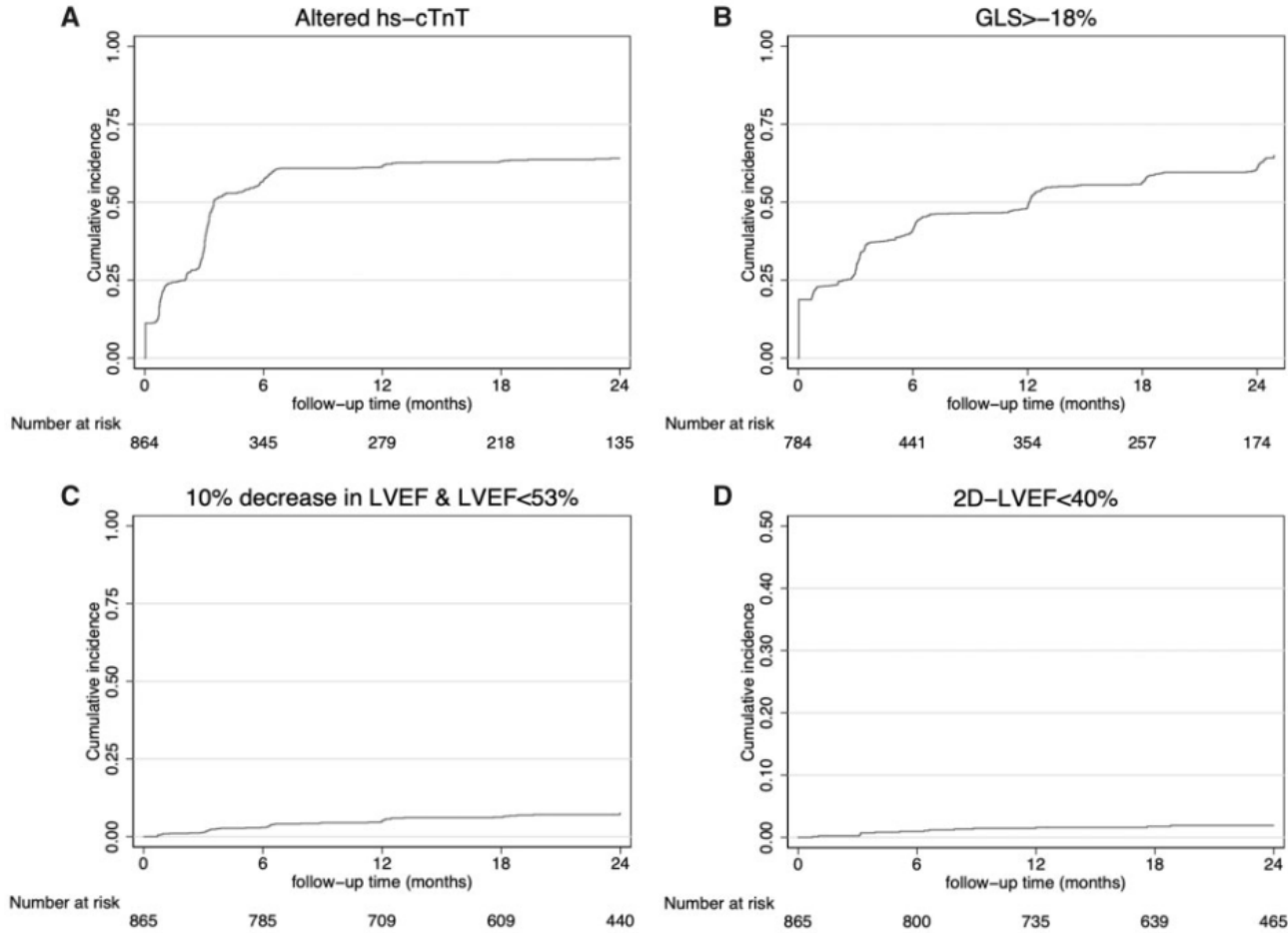


	All patients, n = 865	Cardiotoxicity				P-value
		No CTox, 541 (62.5)	Mild, 273 (31.6%)	Moderate, 24 (2.8%)	Severe, 27 (3.1%)	
Cancer diagnosis, n (%)						
Breast cancer	568 (65.7)	333 (58.6)	218 (38.4)	14 (2.5)	3 (0.5)	<0.001
Non-Hodgkin's lymphoma	133 (15.4)	82 (61.7)	30 (22.6)	6 (4.5)	15 (11.3)	<0.001
Hodgkin's lymphoma	44 (5.1)	31 (70.5)	10 (22.7)	1 (2.3)	2 (4.5)	0.46
Myeloblastic acute leukaemia	31 (3.6)	25 (80.6)	1 (3.2)	0 (0)	5 (16.1)	<0.001
Colorectal	17 (2)	14 (82.4)	1 (5.9)	0 (0)	2 (11.8)	0.023
Lymphoblastic acute leukaemia	8 (0.9)	7 (87.5)	1 (12.5)	0 (0)	0 (0)	0.558
Other non-haematological	75 (8.7)	55 (73.3)	16 (21.3)	3 (4)	1 (1.3)	0.12
Other haematological	10 (1.2)	6 (60)	3 (30)	0 (0)	1 (10)	0.554
Two different cancer diagnosis	22 (2.5)	13 (59.1)	7 (31.8)	0 (0)	2 (9.1)	0.359

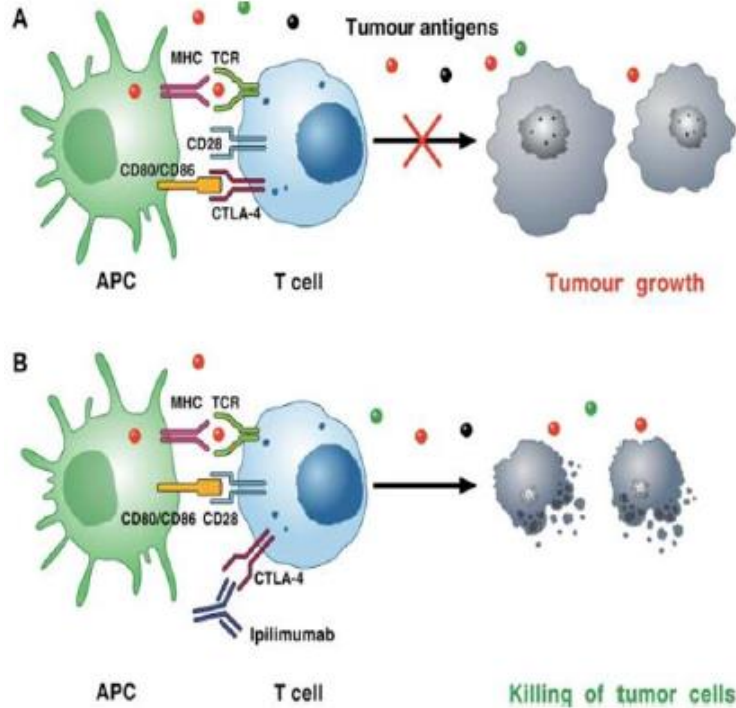
Translación en cardio-oncología



Cumulative incidence of representative myocardial injury / dysfunction parameters

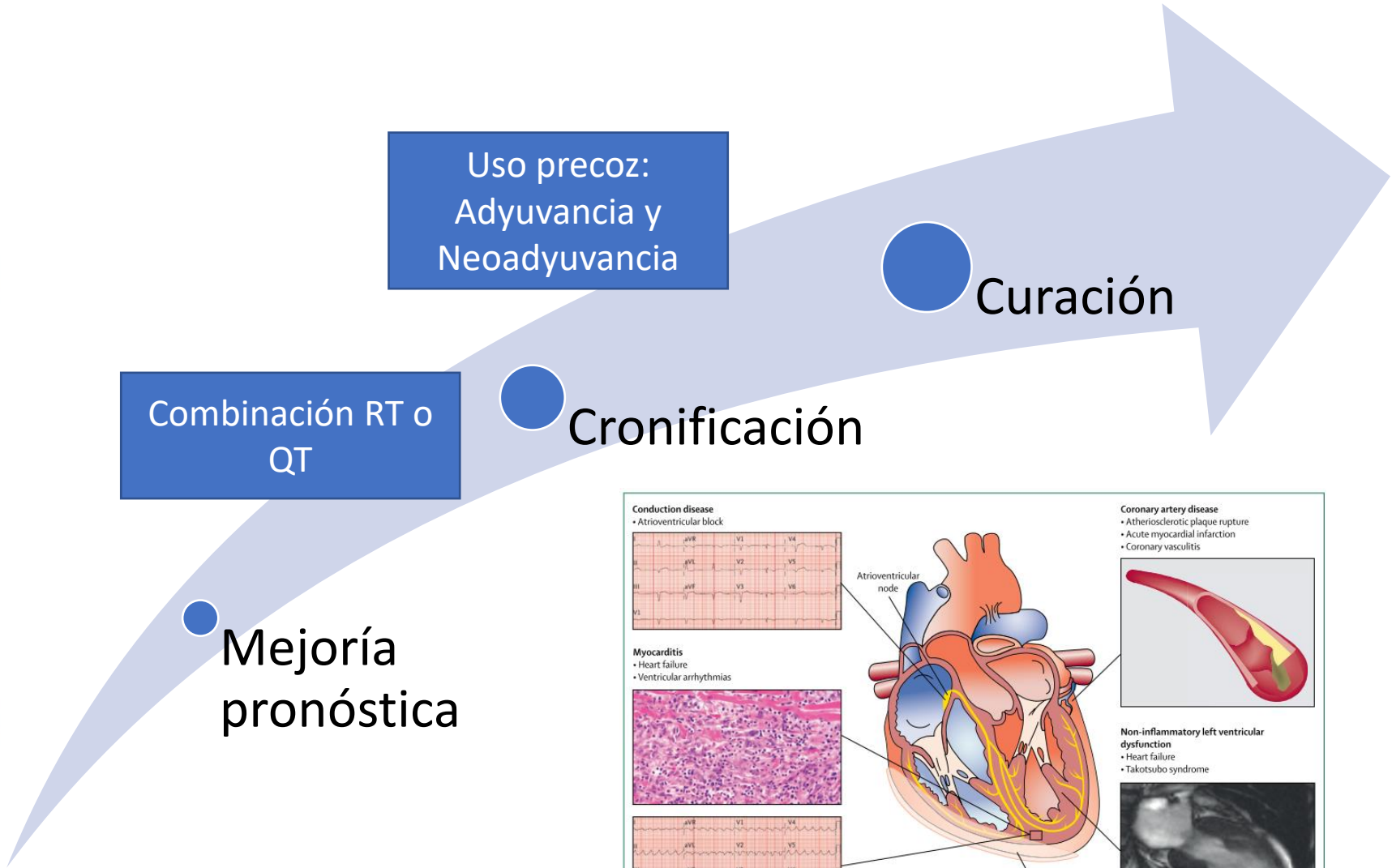


Inmunoterapia



Uso precoz:
Adyuvancia y
Neoadyuvancia

Combinación RT o
QT



Miocarditis por inmunoterapia

Factores predisponentes

- Diabetes Mellitus, SAOS, BMI
- Combinación ICI (Nivolumab)

Eventos graves frecuentes

C Cases and fatality rates

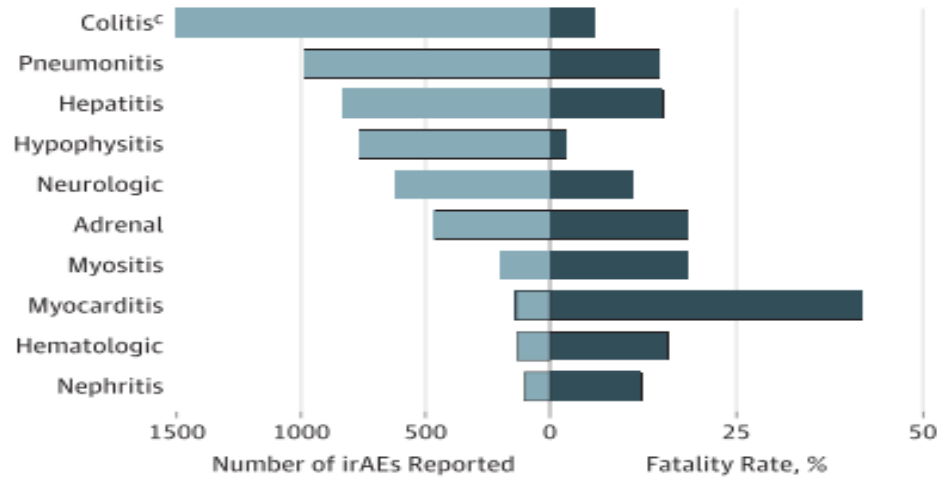
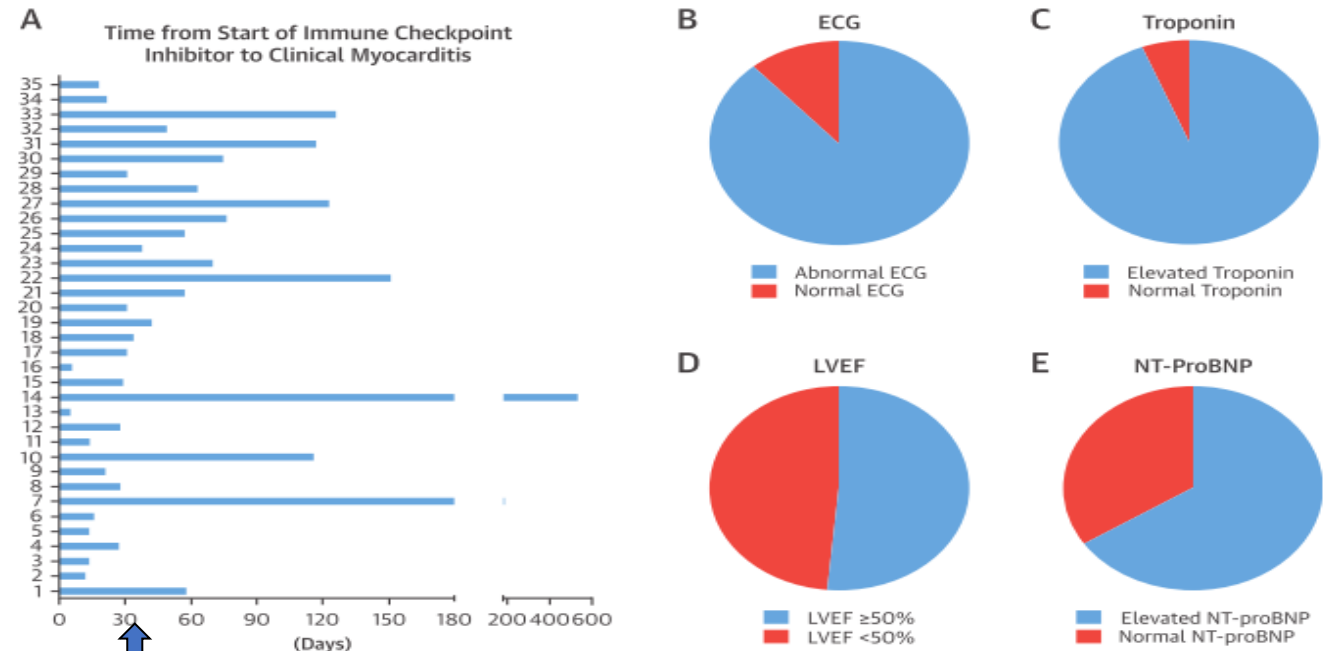


FIGURE 1 Clinical Presentation of Patients With ICI-Associated Myocarditis

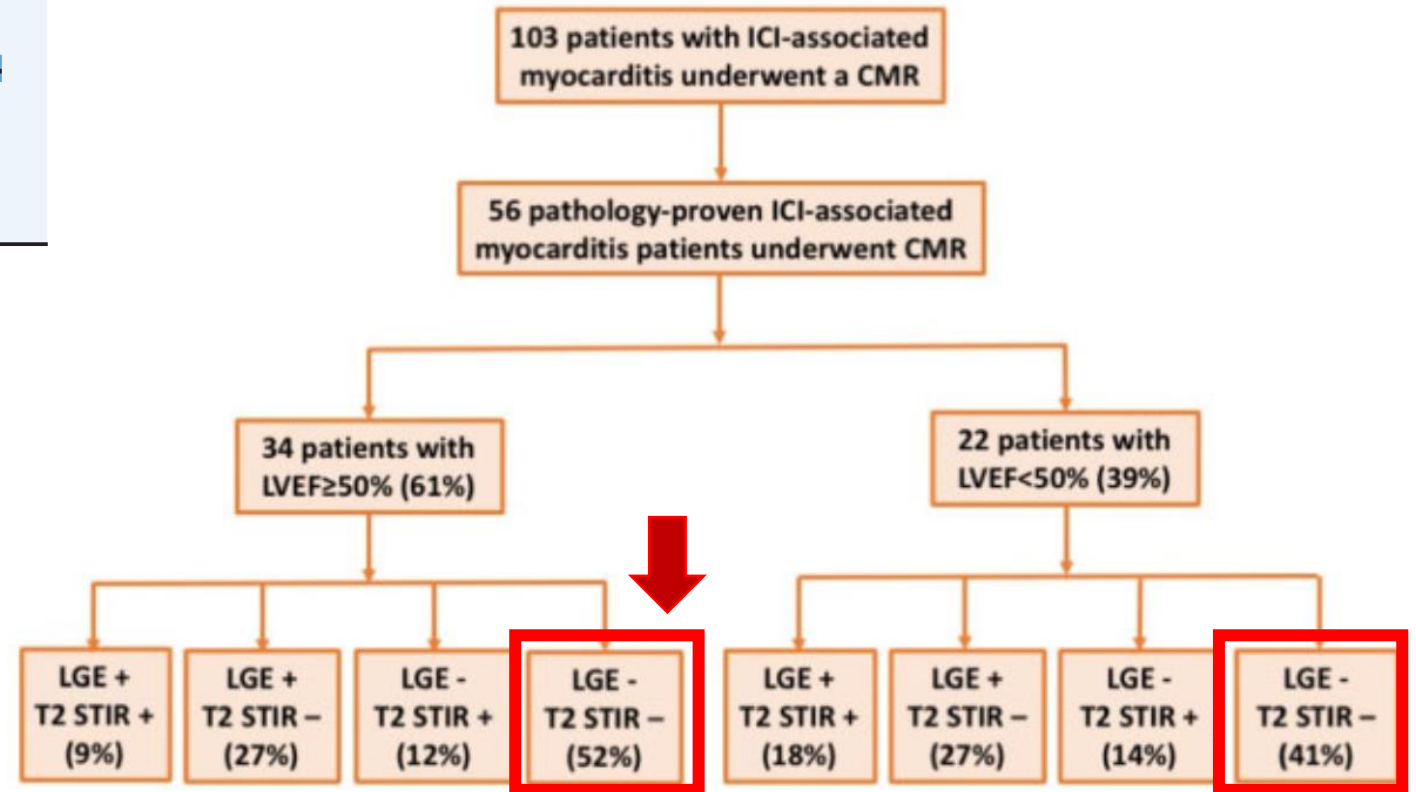
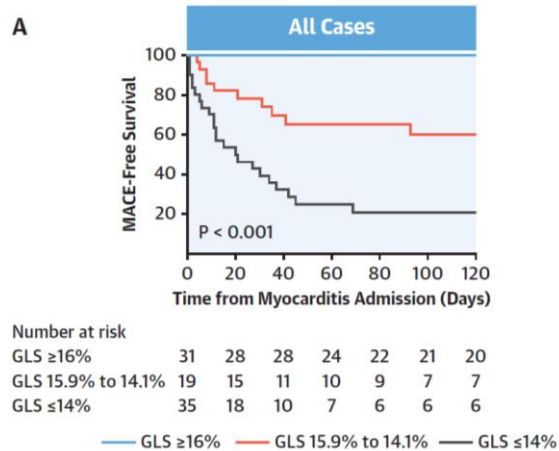
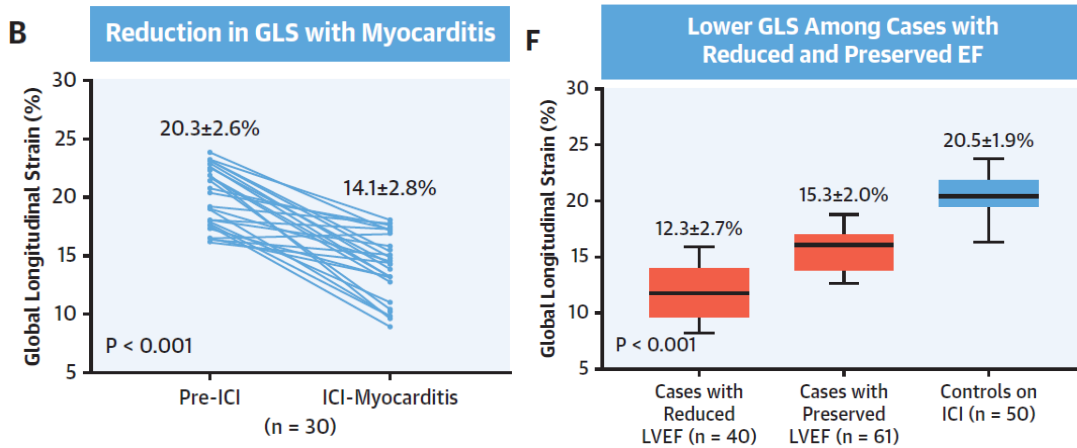


Tiempo medio
34 días

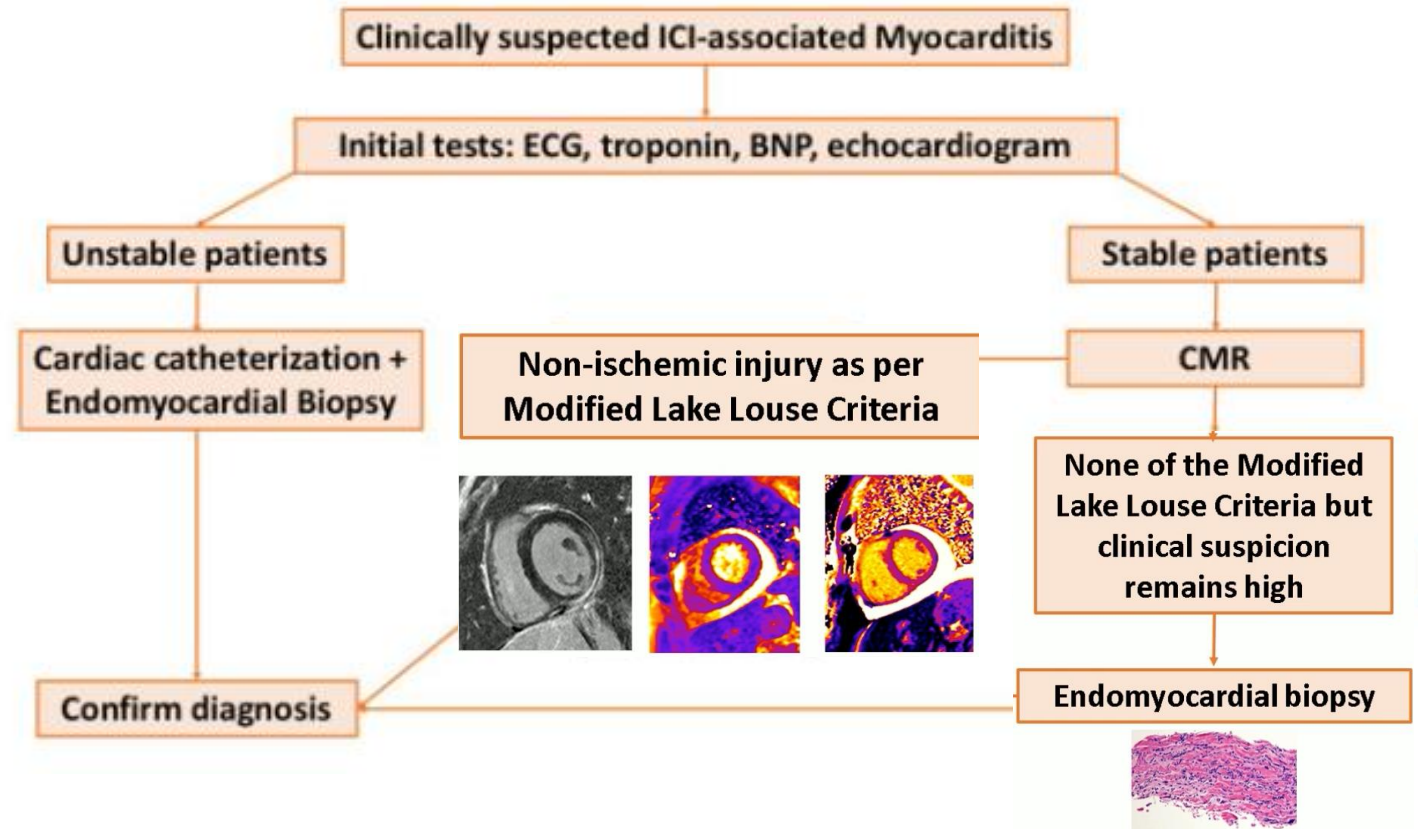
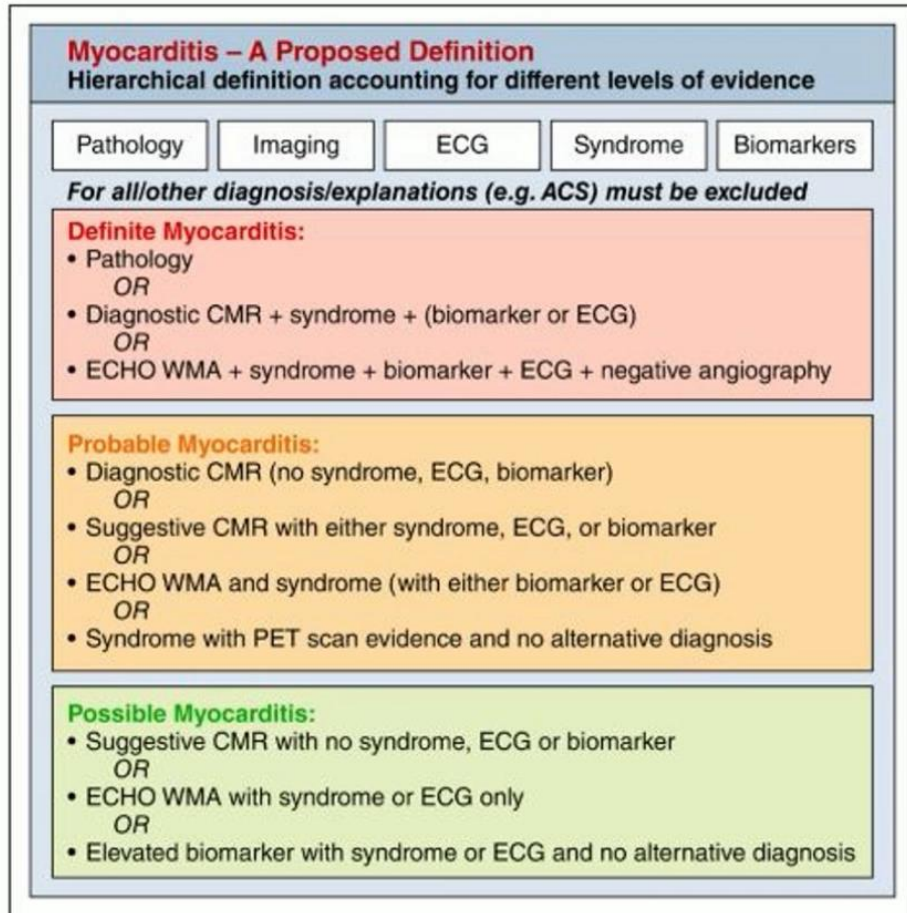
20% MORTALIDAD

Miocarditis por inmunoterapia

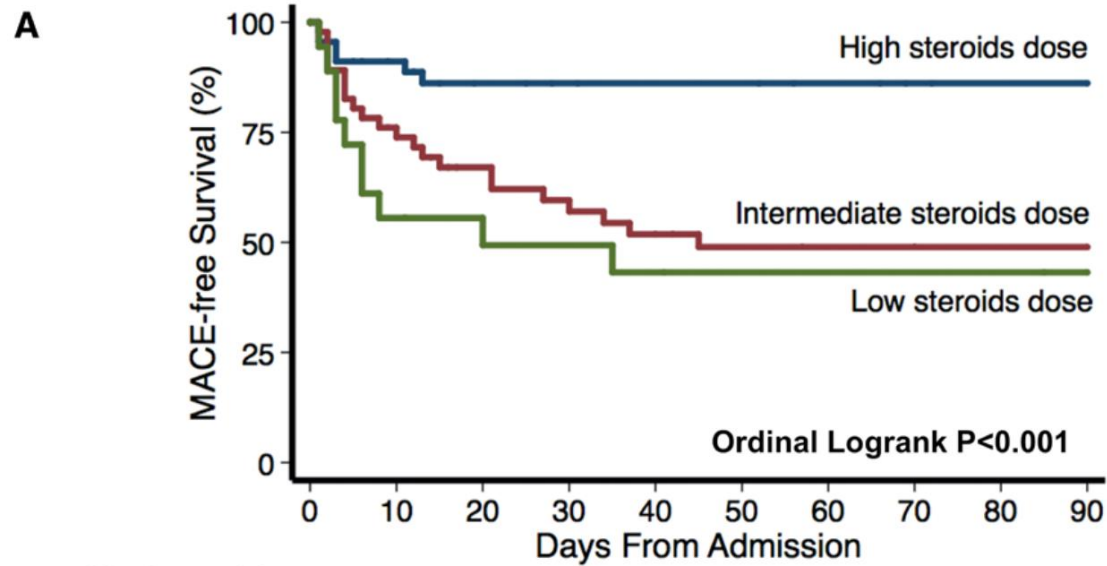
Cardiovascular magnetic resonance in immune checkpoint inhibitor-associated myocarditis



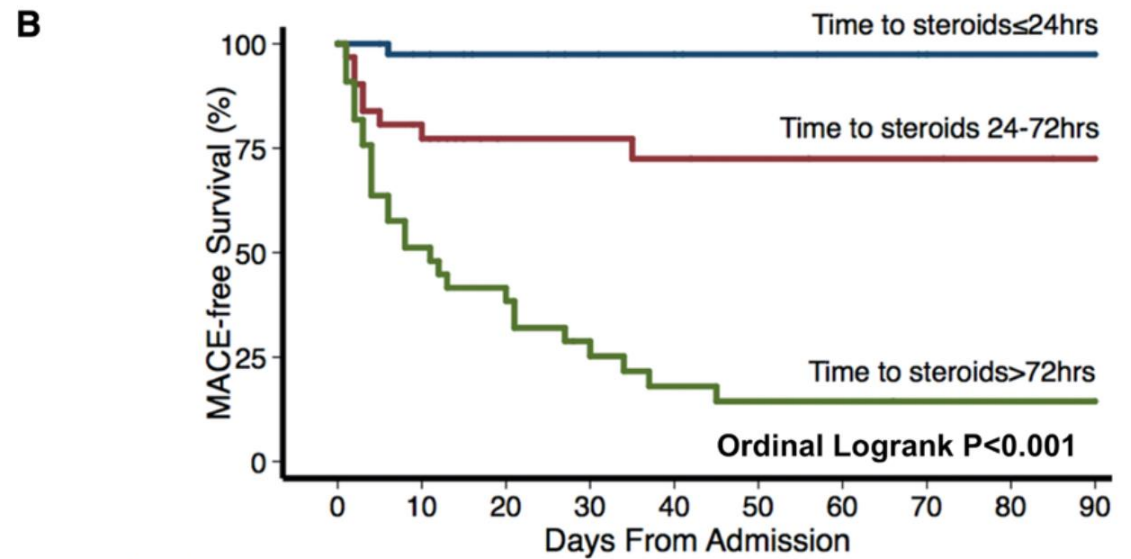
Miocarditis por inmunoterapia



Miocarditis por inmunoterapia

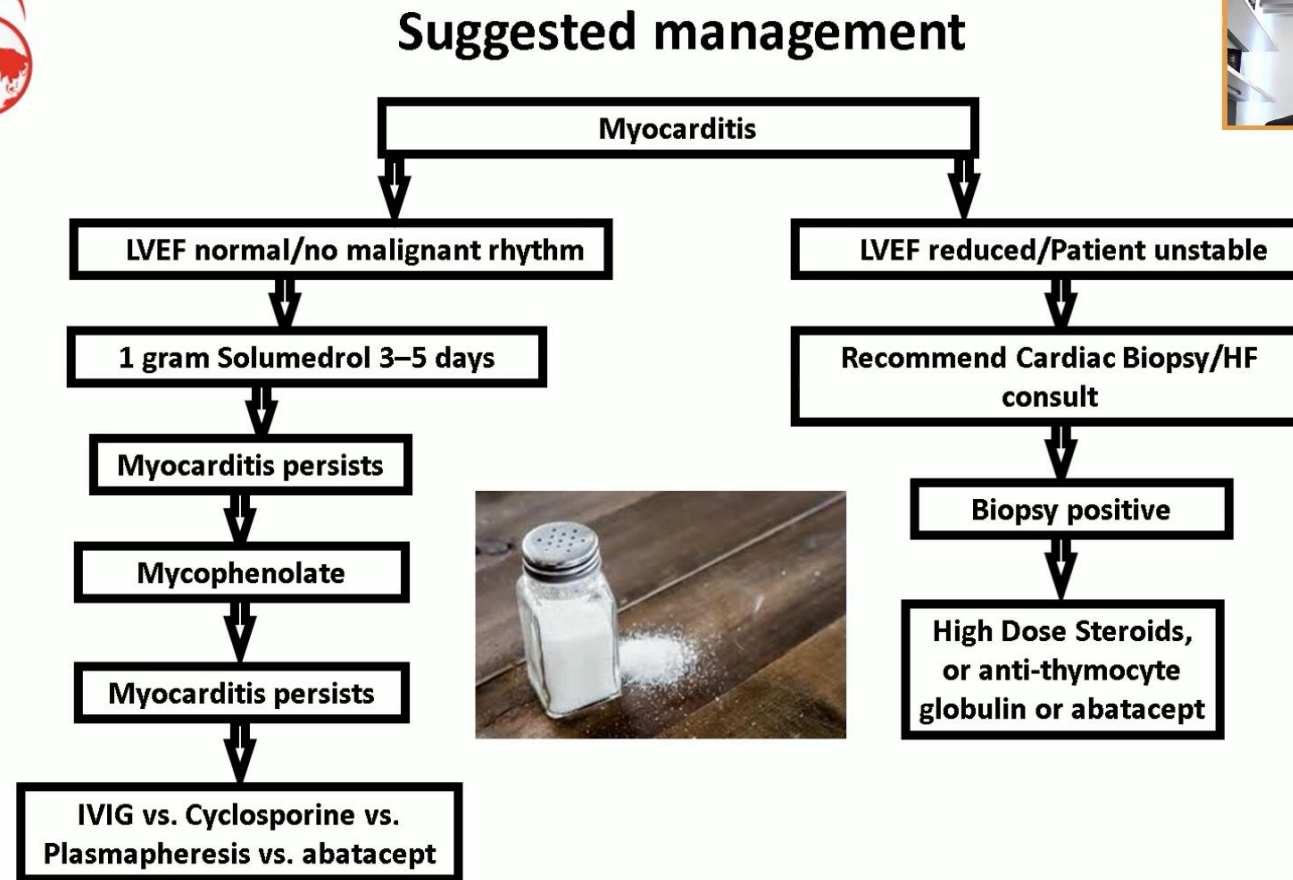


Number at risk		0	10	20	30	40	50	60	70	80	90
High steroids dose	45	38	30	28	27	27	25	23	22	22	22
Intermediate steroids dose	46	34	27	23	20	17	16	16	15	15	15
Low steroids dose	18	10	9	8	7	6	6	6	6	6	5



Number at risk		0	10	20	30	40	50	60	70	80	90
Time to steroids ≤24hrs	40	37	34	32	31	29	27	26	25	25	25
Time to steroids 24-72hrs	31	24	16	16	15	14	13	13	12	11	11
Time to steroids >72hrs	33	16	13	8	5	4	4	3	3	3	3

“TODO PACIENTE DEBE TENER UN ECG Y UNA DETERMINACIÓN DE TROPONINA ANTES DE INICIAR INMUNOTERAPIA”



Arritmias y anticoagulación en cáncer

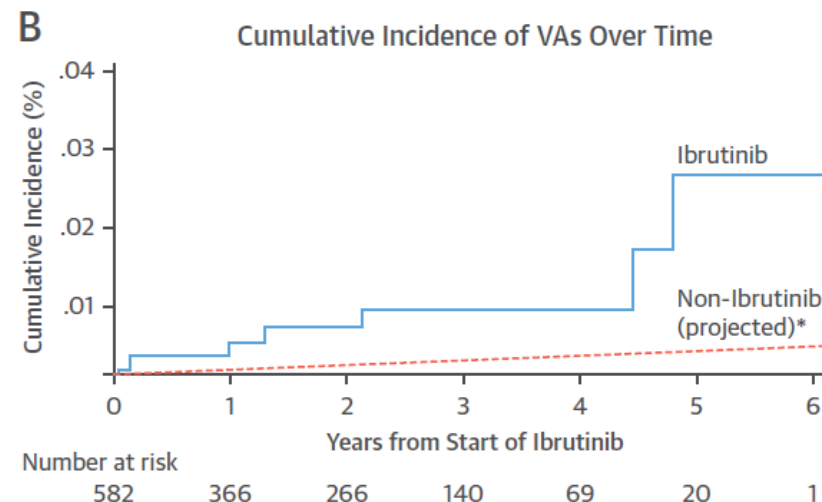
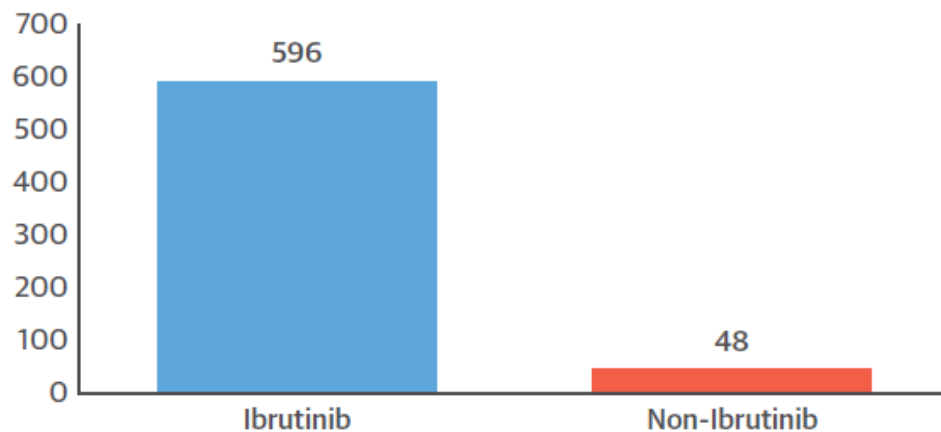
- FIBRILACIÓN AURICULAR Y CÁNCER ACTIVO
 - **Alta incidencia**
 - Mecanismos múltiples: medicación, factores de riesgo, aumento de tono adrenérgico, factores locales...
 - Los pacientes oncológicos son más vulnerables con **mayor riesgo de sangrado y tromboembolia**
 - **Peor anticoagulación** que pacientes sin cáncer
- *López-Fernández, T., et al. (2019). "Abordaje de la fibrilación auricular en pacientes con cáncer activo. Documento de consenso de expertos y recomendaciones." Revista Española de Cardiología **72(9)**: 749-759.*

Arritmias y anticoagulación en cáncer

Ventricular Arrhythmias Following Ibrutinib Initiation for Lymphoid Malignancies

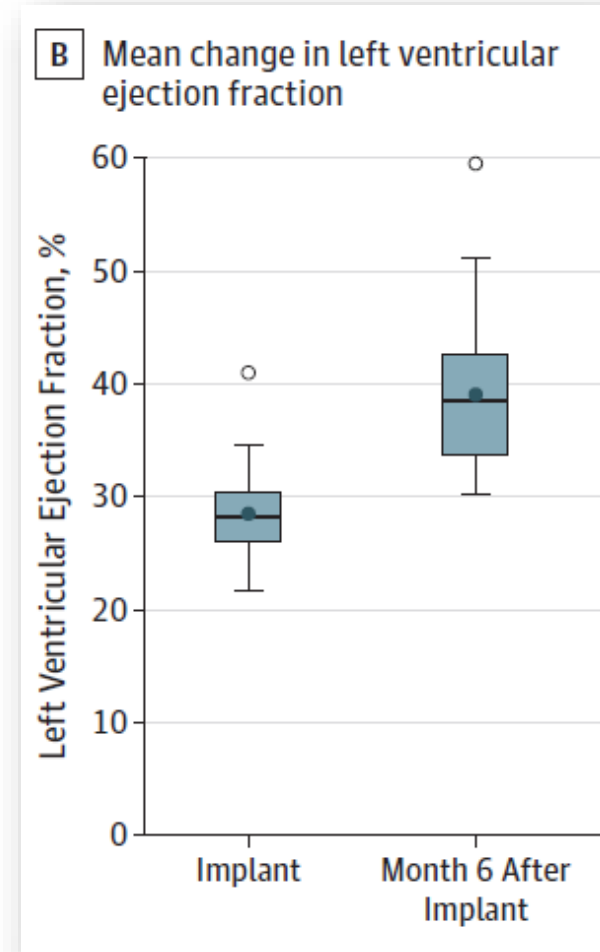
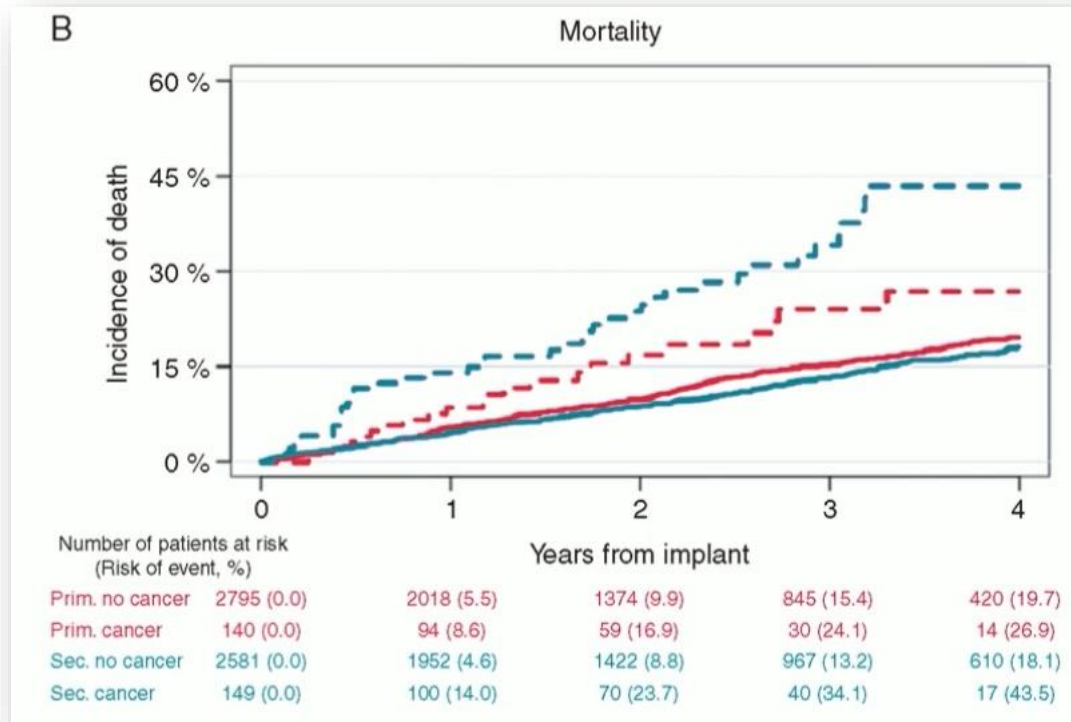


A VA Incidence Rate per 100,000 Person-Years



No cardiovascular or electrocardiographic variables, including QTc, were found to be associated with VAs. However, male sex, previous atrial fibrillation, HF, CAD, diabetes, widened QRS, and valvular disease, respectively, were associated with development of any arrhythmia (VA + SVT). In a multivariable model, only previous atrial fibrillation was associated with arrhythmic events.

Arritmias y anticoagulación en cáncer: DAI



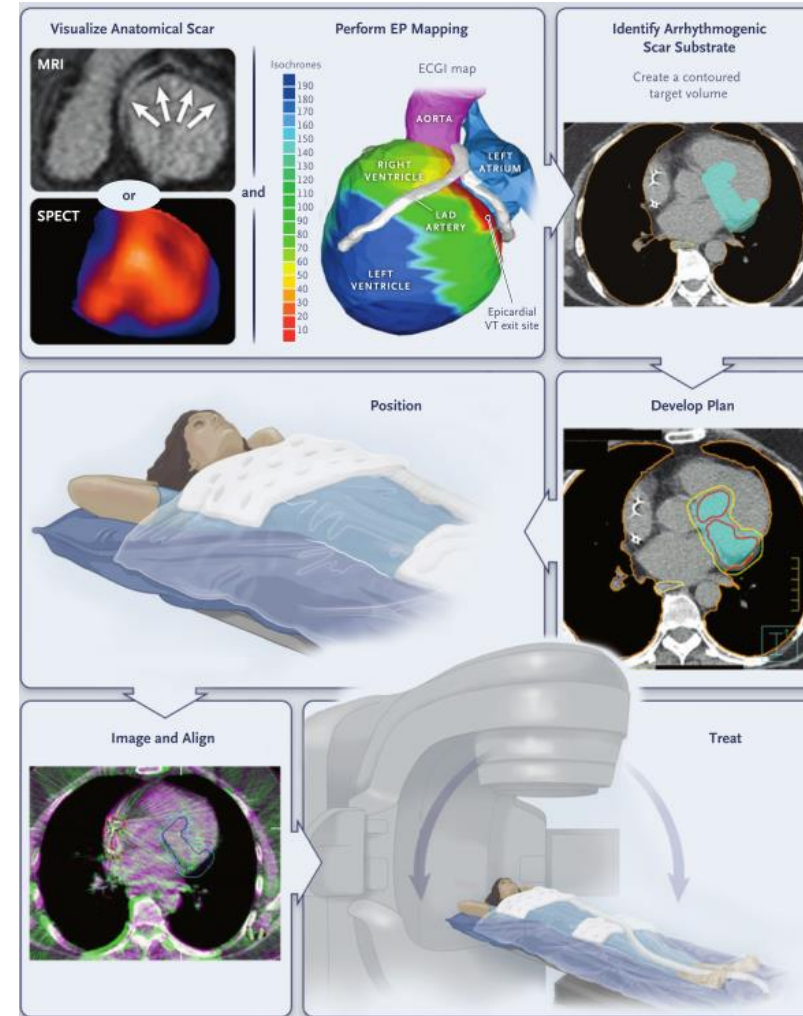
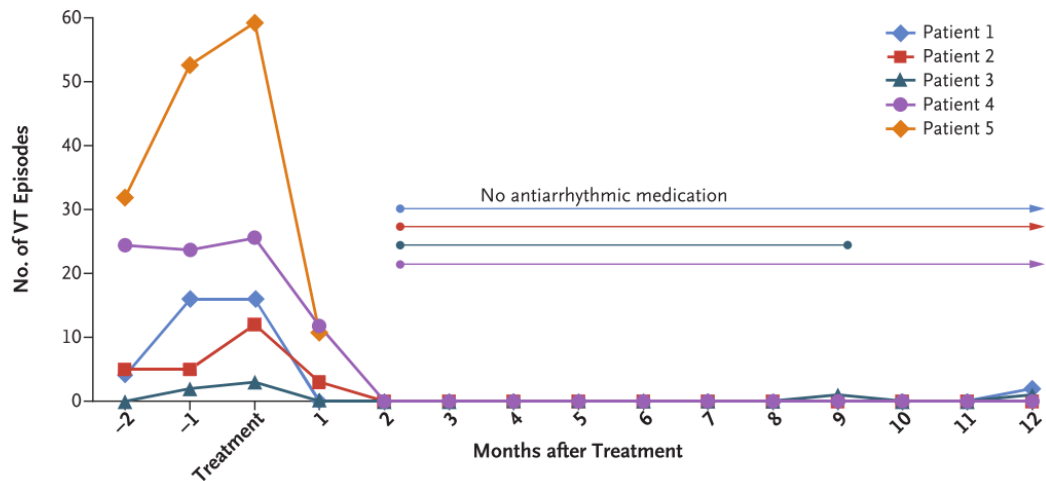
Arritmias y anticoagulación en cáncer: RT cardiaca

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Noninvasive Cardiac Radiation for Ablation of Ventricular Tachycardia

A Monthly Assessment of All VT Episodes per Patient

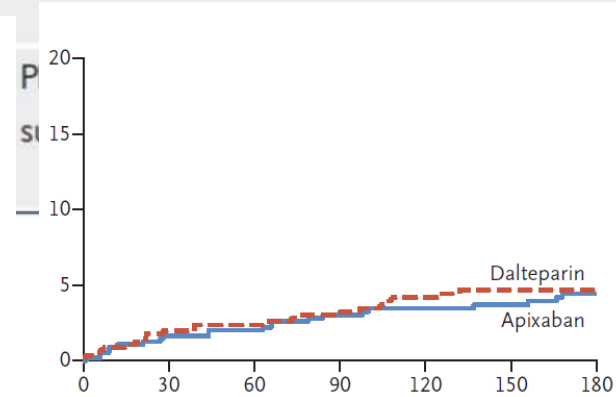
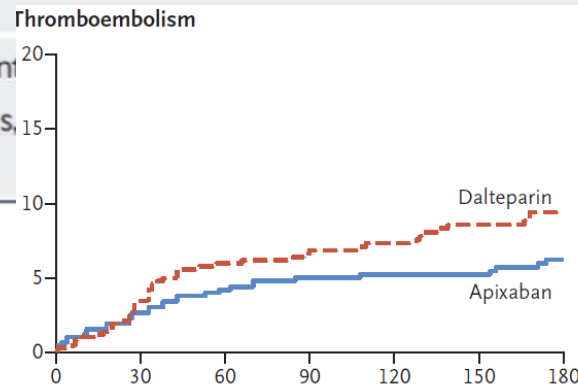


Arritmias y anticoagulación en cáncer: VTE y PE

8.6 Recommendations for the regimen and the duration of anticoagulation after pulmonary embolism in patients with active cancer

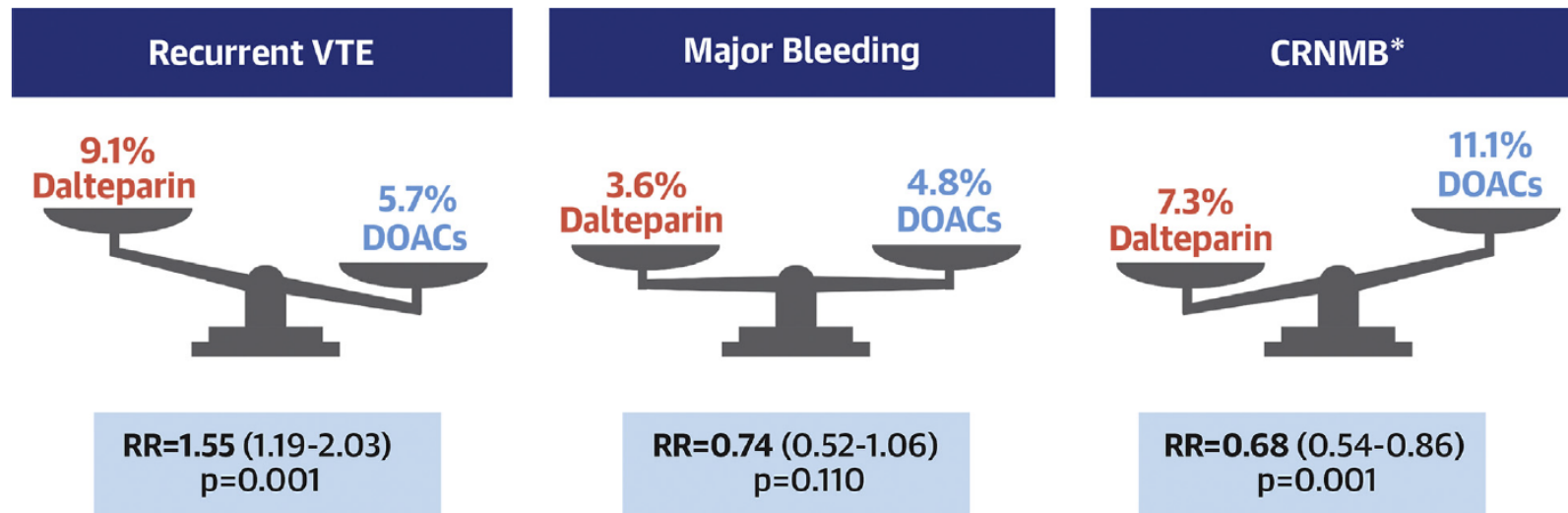
Recommendations	Class ^a	Level ^b
For patients with PE and cancer, weight-adjusted subcutaneous LMWH should be considered for the first 6 months over VKAs. ^{360–363}	Ila	A
Edoxaban should be considered as an alternative to weight-adjusted subcutaneous LMWH in patients without gastrointestinal cancer. ³⁶⁶	Ila	B
Rivaroxaban should be considered as an alternative to weight-adjusted subcutaneous LMWH in patients without gastrointestinal cancer. ³⁶⁷	Ila	C
For patients with PE and cancer, extended anticoagulation (beyond the first 6 months) ^c should be considered for an indefinite period or until the cancer is cured. ³⁷⁸	Ila	B
In patients with cancer, management of incident involves segmental or more proximal branches tion with proven DVT. ^{376,377}	Ila	B

+ APIXABAN



Arritmias y anticoagulación en cáncer: DOACs

CENTRAL ILLUSTRATION DOACs Are Associated With Lower Recurrent VTE and Higher Nonmajor Bleeding Compared to Dalteparin



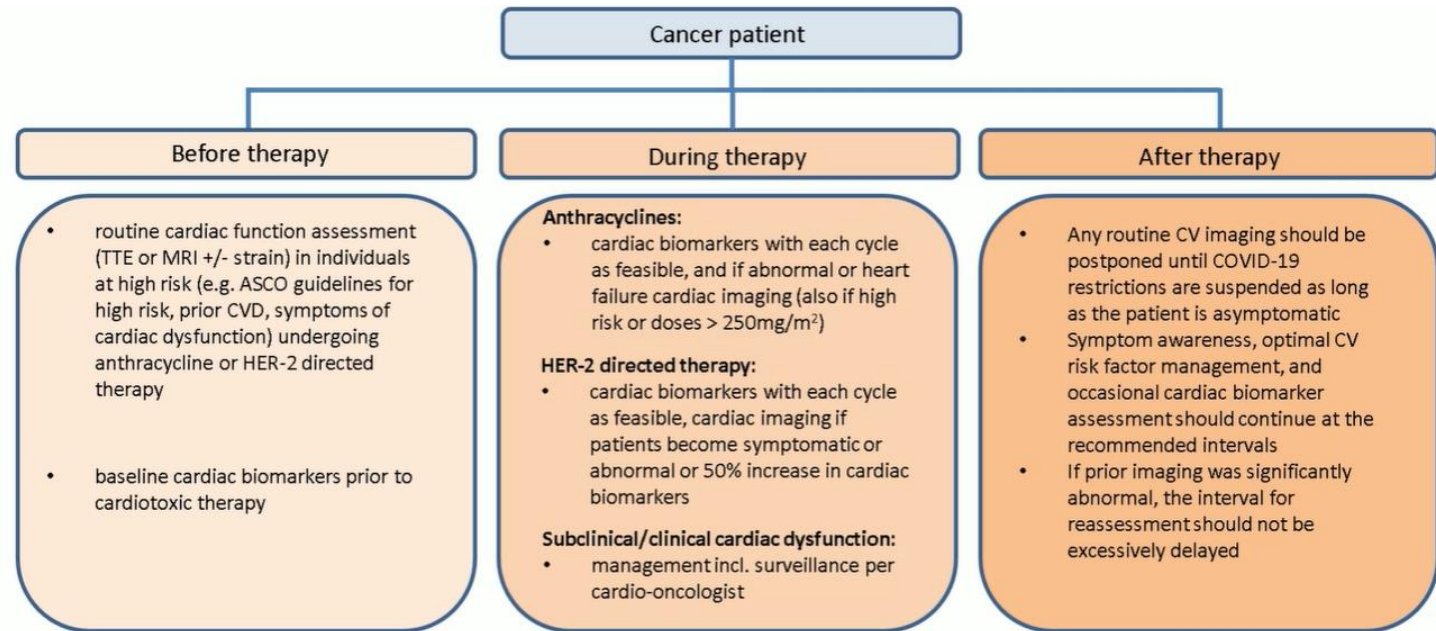
*More evident in studies with GI cancers

Sabatino, J. et al. J Am Coll Cardiol CardioOnc. 2020;2(3):428-40.

Direct oral anticoagulants (DOACs) are noninferior to dalteparin to prevent venous thromboembolism (VTE) recurrence in cancer patients, with similar rates of major bleeding but higher clinically relevant nonmajor bleeding (CRNMB) events, particularly in studies in which a larger proportion of patients with gastrointestinal (GI) cancer was enrolled.

Prevención COVID 19

1. Los pacientes con cáncer tienen mayor riesgo de mala evolución en caso de COVID19
2. Aumento de mortalidad, especialmente en presencia de comorbilidad: FRCV y Enf CV
3. Los pacientes Cardio-oncológicos tienen, por tanto, el riesgo más alto
4. La protección contra la infección es nuestra principal estrategia
5. El cuidado cardio-oncológico se fundamenta en control de FR y en monitorización de biomarcadores



Dr. Joerg Herrmann, Cardio-oncology Program Director at Mayo Clinic
@mayocvonc



0.989321

