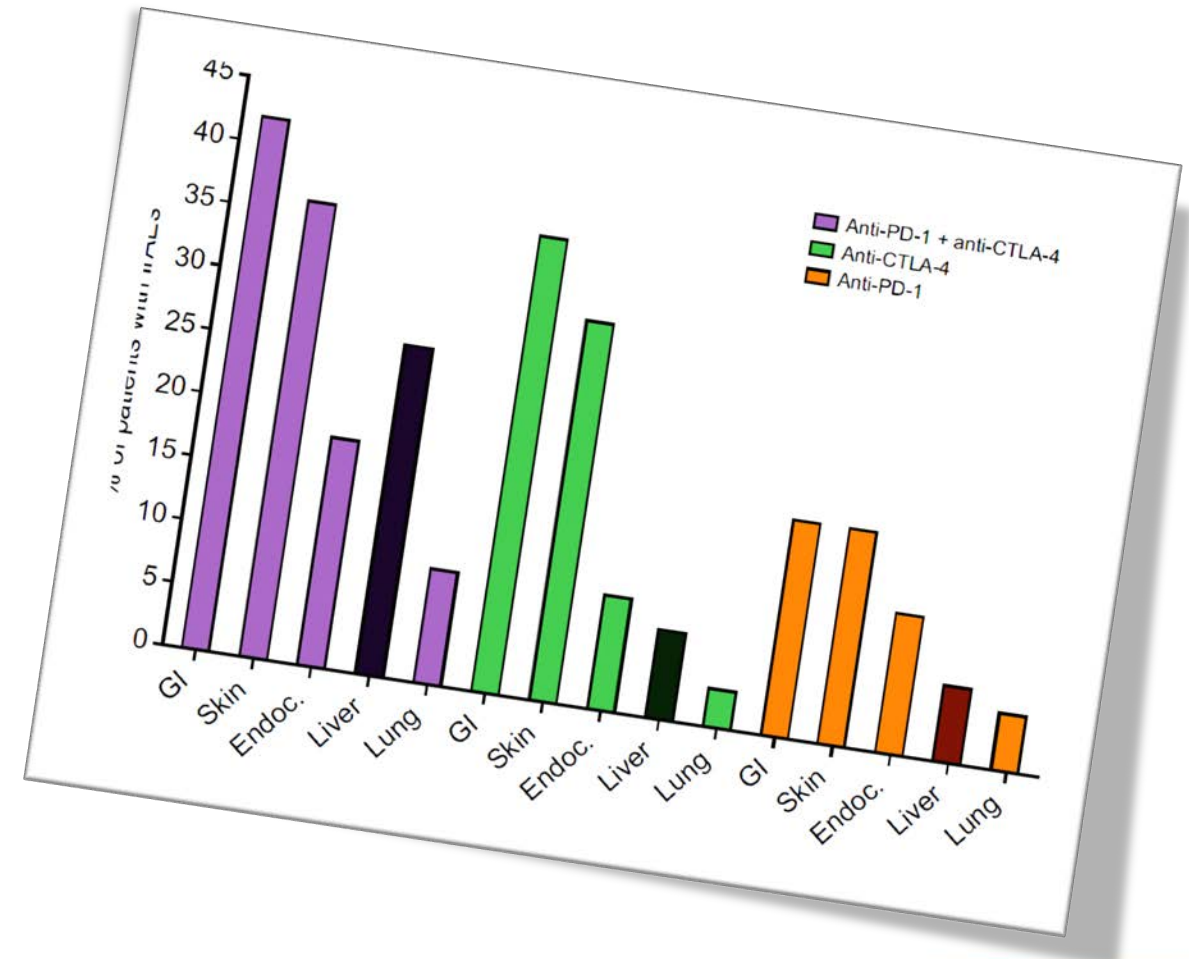
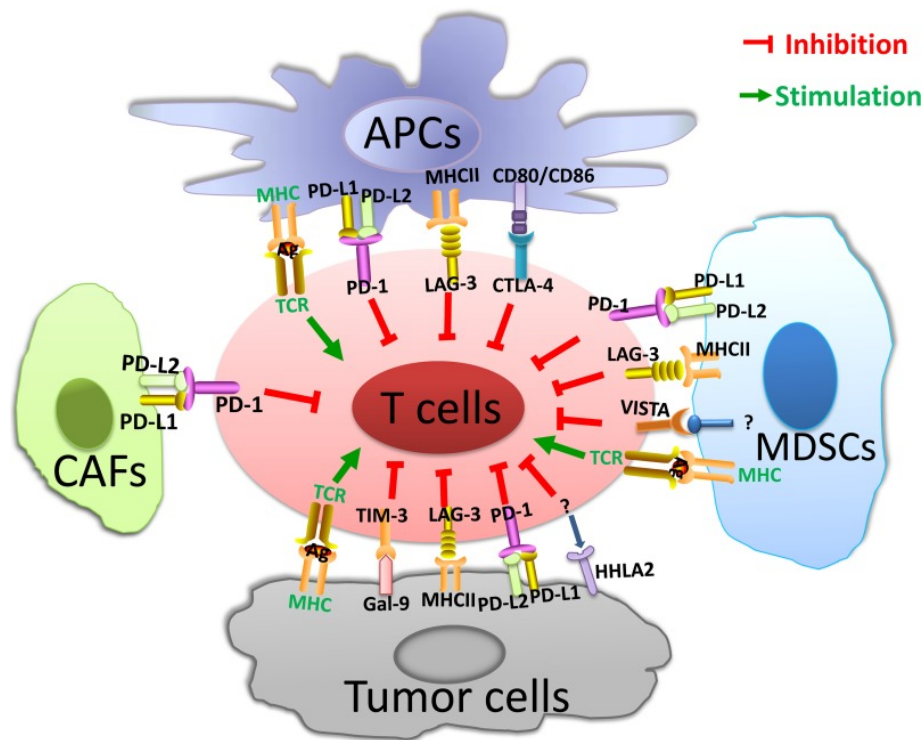


Hepatitis inmunomediada

Nelia Hernández



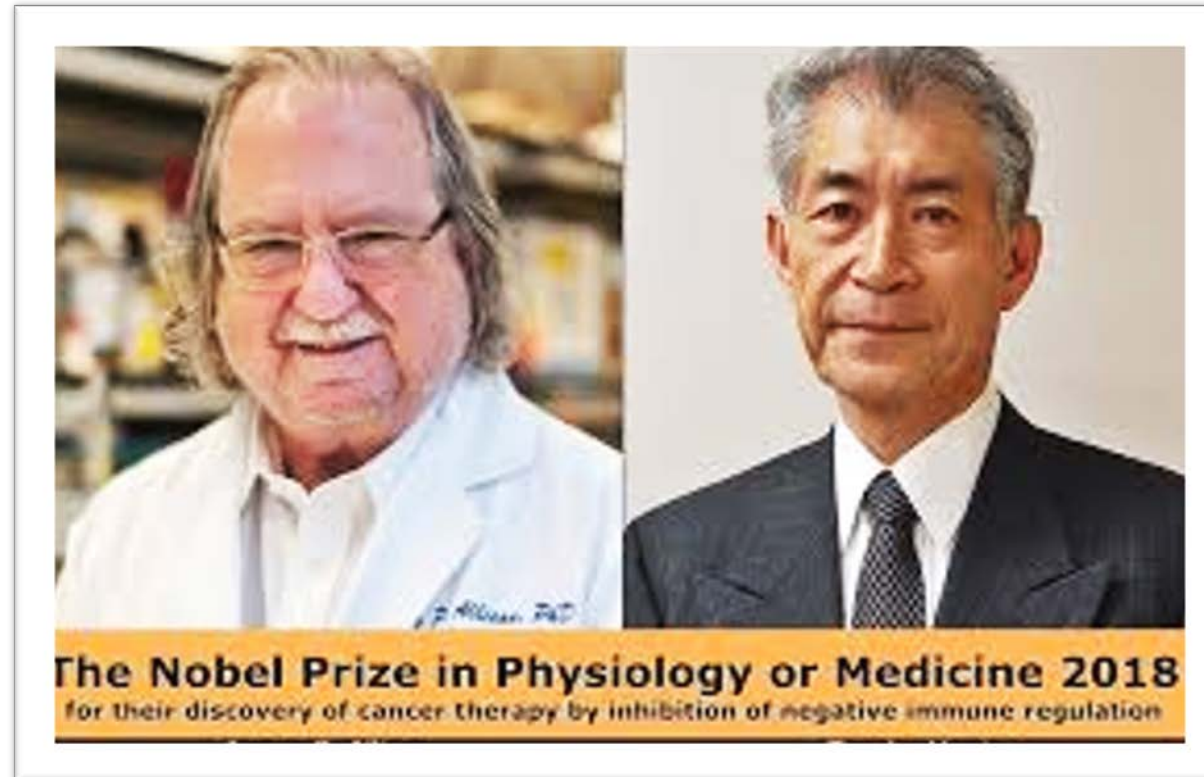
La hepatitis inmunomediada es uno de los tantos eventos adversos inmunorrelacionados que pueden presentarse en los pacientes tratados con IPCI (inhibidores de los puntos de control inmunológico).



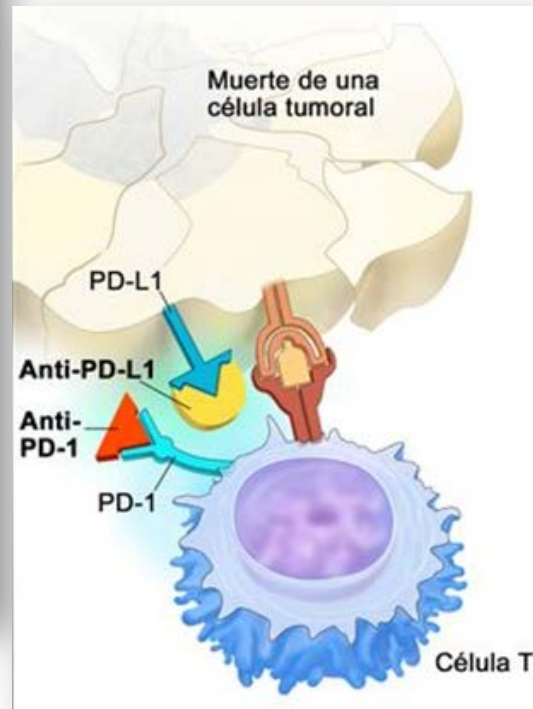
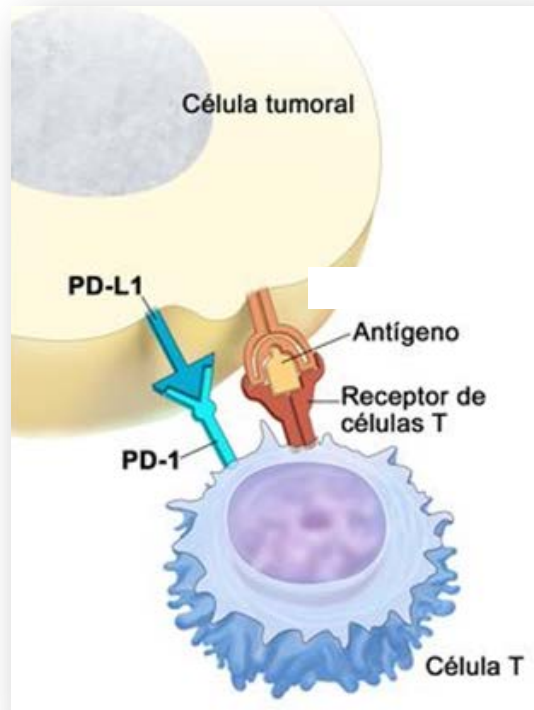
Los IPCI tienen riesgo de toxicidad en varios órganos



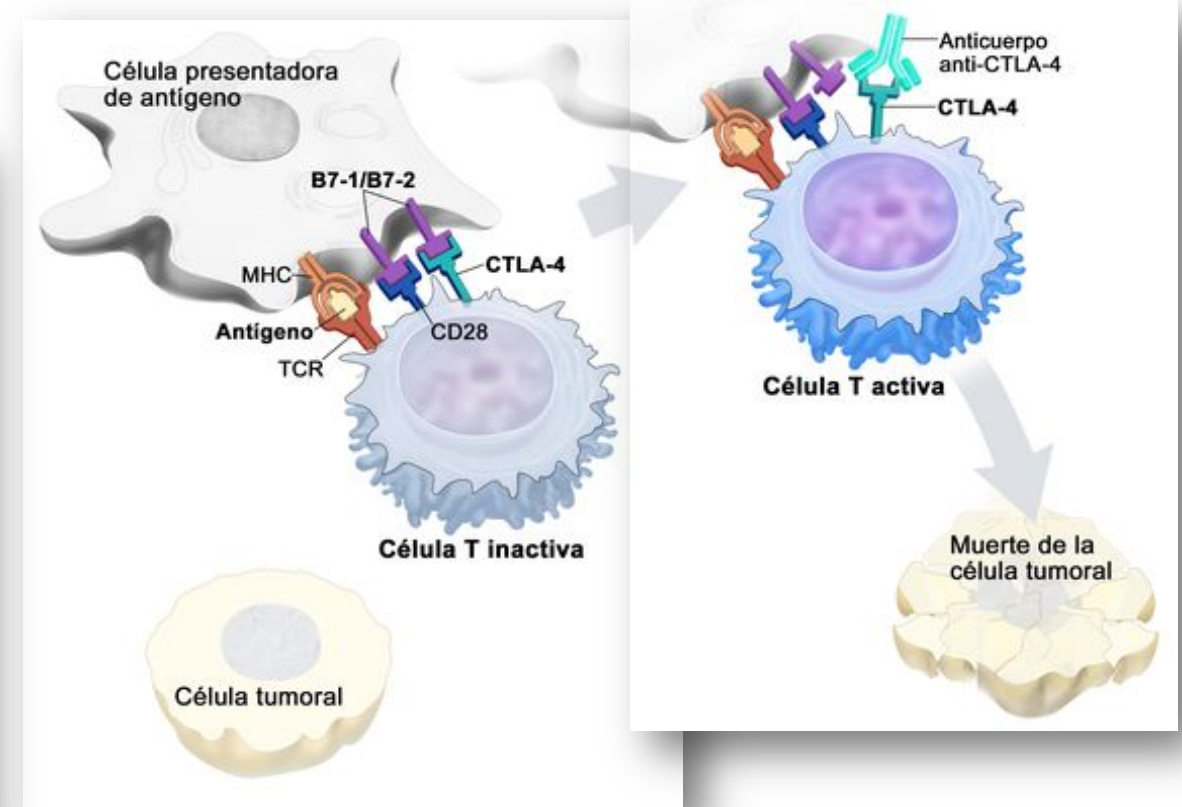
... tratamiento de tumores metastásicos con respuestas durables



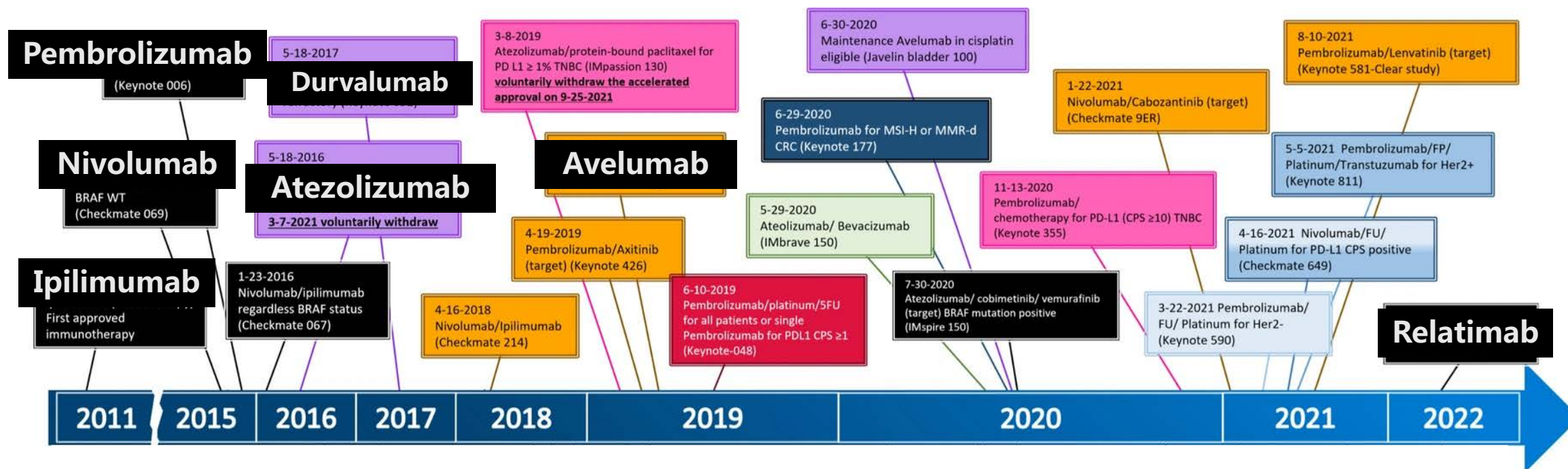
Anti programmed cell death ligand 1 atezolizumab, durvalumab



Anti-programmed cell death 1
nivolumab, pembrolizumab



Anti cytotoxic T lymphocyte antigen-4
Ipilimumab



- Head and Neck Cancer
- Breast Cancer
- NSCLC
- SCLC
- Mesothelioma
- Melanoma
- GI - Esophageal / GE Cancer

- GI - Gastric / GE Cancer
- GI - Colorectal Cancer
- GI - Hepatocellular Cancer and biliary tumour
- GU - Kidney Cancer
- GU - Bladder Cancer
- Gyn - Cervical Cancer
- Gyn - Endometrial Cancer



Characterization of liver injury induced by cancer immunotherapy using immune checkpoint inhibitors

Eleonora De Martin¹, Jean-Marie Michot², Barbara Papouin³, Stéphane Champiat², Christine Mateus⁴, Olivier Lambotte⁵, Bruno Roche¹, Teresa Maria Antonini¹, Audrey Coilly¹, Salim Laghouati⁶, Caroline Robert⁴, Aurélien Marabelle², Catherine Guettier³, Didier Samuel^{1,*}

Todos los pacientes tratados con IPCI (536) que desarrollaron hepatitis grado 3* o más (19) fueron referidos a un Centro Hepatológico

(Agosto 2015 a Abril 2017)

Estricto protocolo de descarte (1 pte HVE+) y biopsia hepática (1 con infiltración tumoral y 1 con extensas mtx hepáticas)

16 pacientes con DILI por IPCI (3,5%)

9 casos con PD1/PDL1 (9/413: 2%)

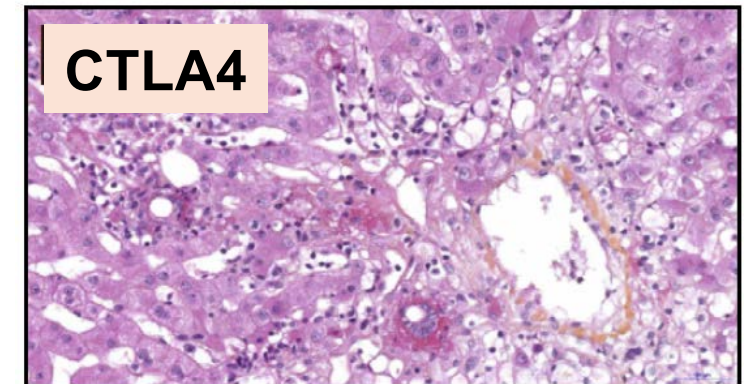
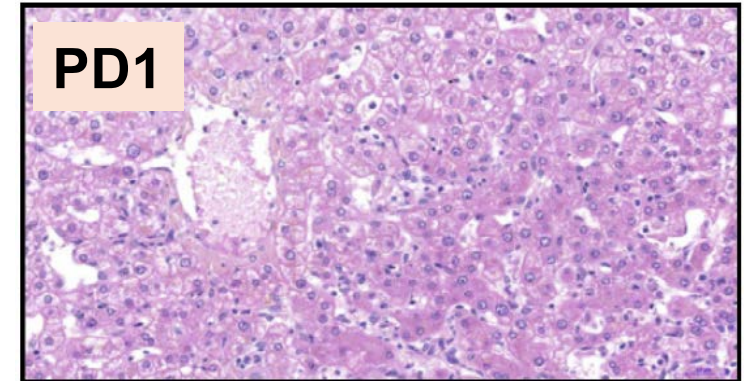
7 casos con CTLA 4 (7/123: 6%)

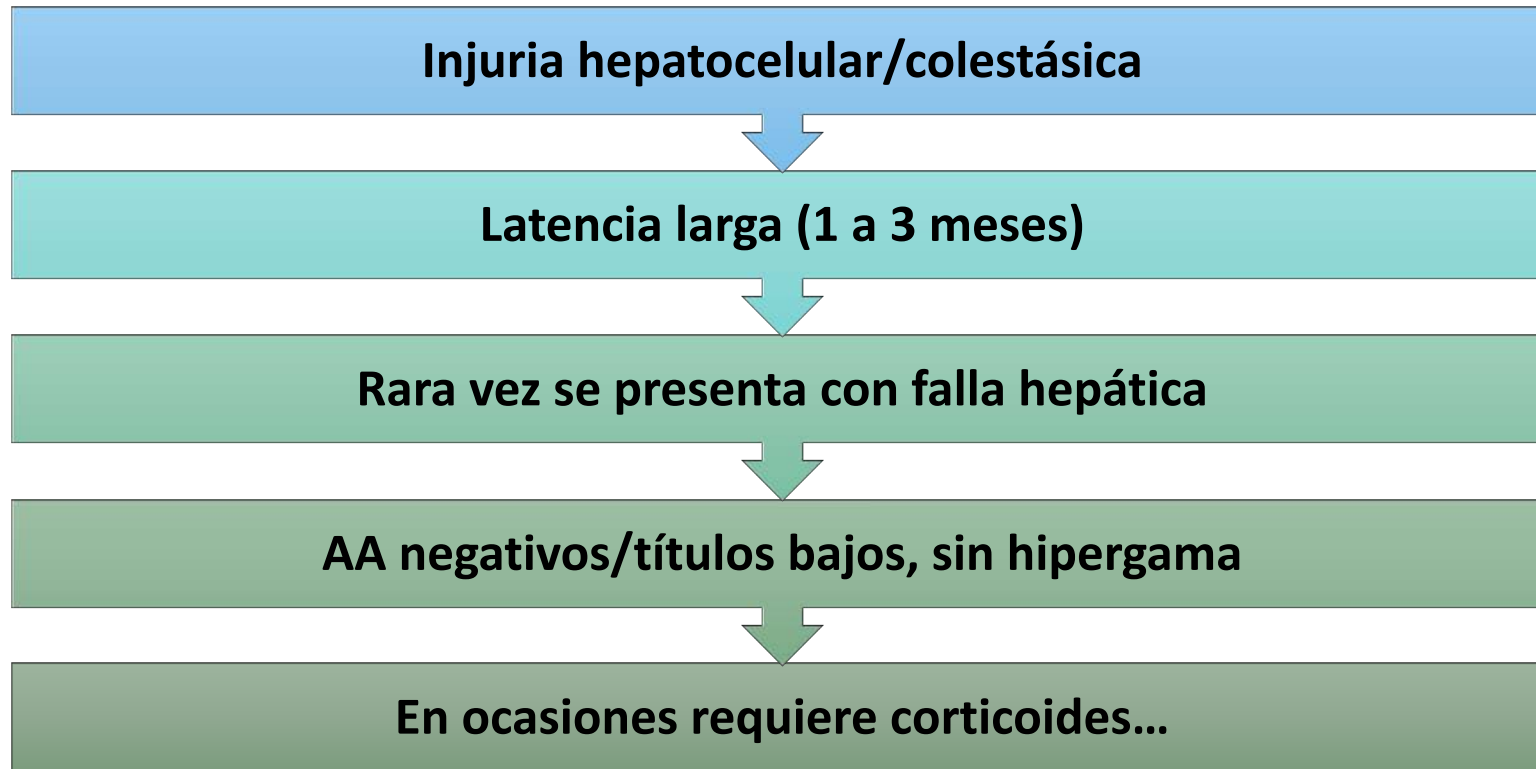
- ✓ 14/16 altamente probables, diferentes patrones
- ✓ Latencia: 5 semanas (1 – 49)
- ✓ Fiebre (6), rash (5) y IRAEs extrahepáticos (6)
- ✓ Los AA fueron negativos o títulos bajos

(* Citólisis o colestasis con más de 5x LSN, bilirrubina más de 3)

- El infiltrado inflamatorio comprendía **linfocitos** pero no células plasmáticas.
- Más de la mitad de las biopsias mostró **colangitis linfocítica y distrofia ductal**.

5 biopsias de los casos por **anti CTLA4** mostraron **hepatitis granulomatosa** (depósitos de fibrina y endotelitis de la VC) y la prevalencia de **linfocitos CD8**.





HEPATOTOXICIDAD IDIOSINCRÁTICA



HEPATOTOXICIDAD INMUNOMEDIADA



Burden of grade 3 or 4 liver injury associated with immune checkpoint inhibitors

Lucia Parlati,^{1,2} Mehdi Sakka,³ Aurelia Retbi,⁴ Samir Bouam,⁵ Lamia Hassani,⁶ Jean-François Meritet,⁷ Pierre Rufat,⁴

952 pacientes tratados con ICPI, **86 (9%)** presentaron hepatitis grado 3/4* .

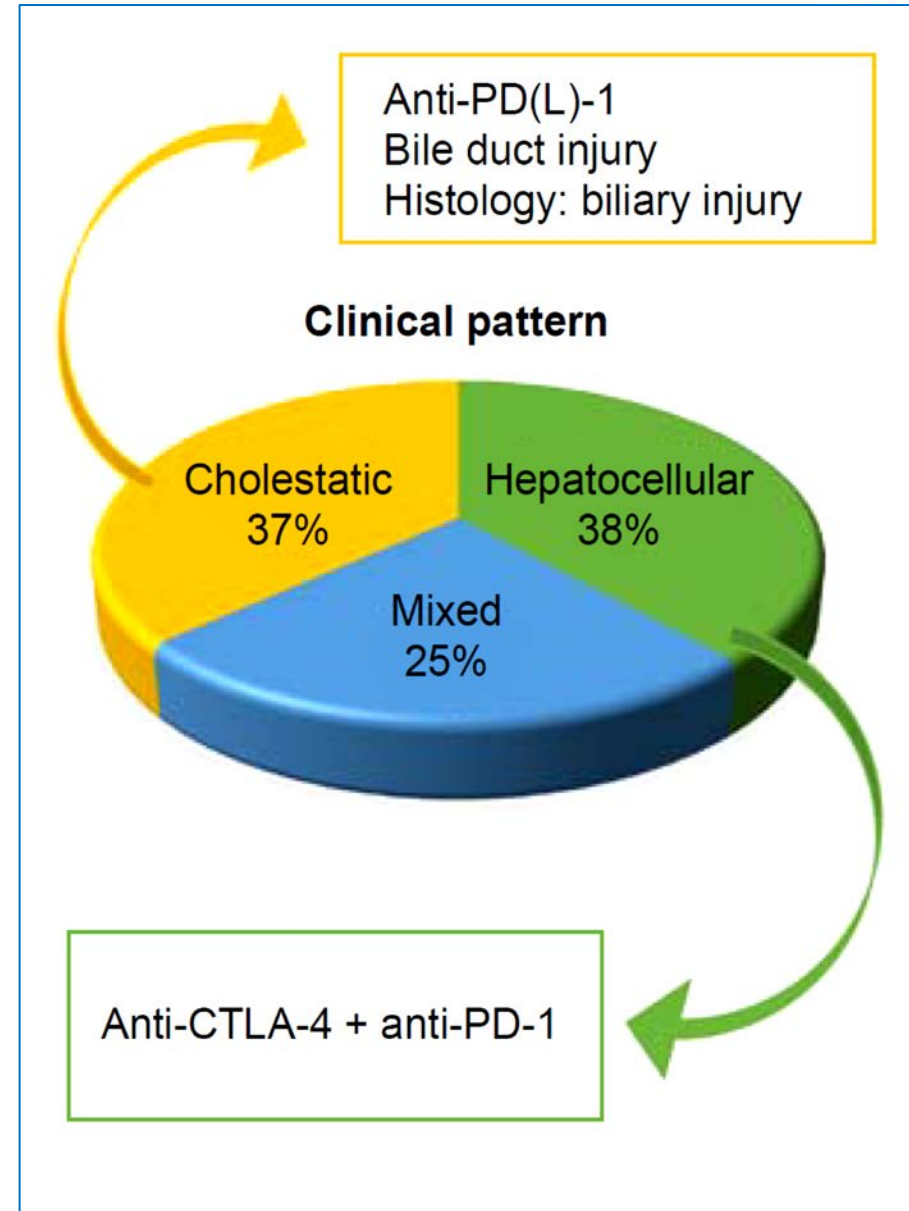
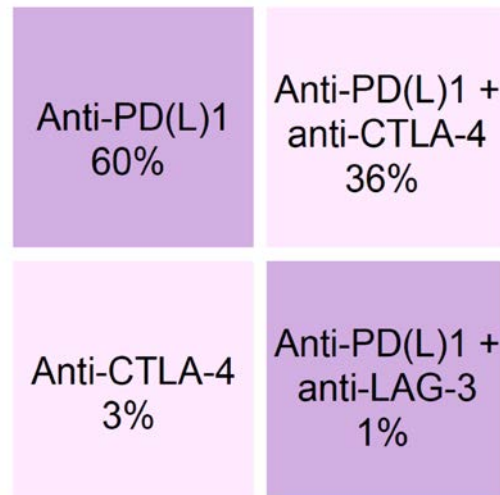
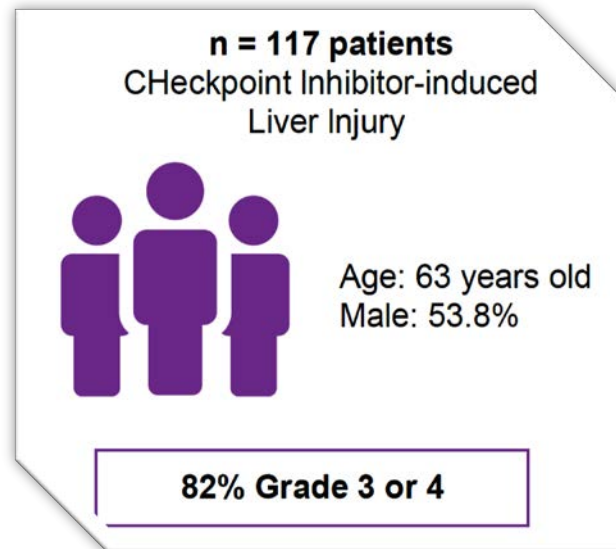
(anti PD1 95% , anti CTLA4 8%, anti PDL1 3%)

39 had non-ICPI DILI

28 had tumour infiltration

19 had ICPI DILI (2%)

(* Citolysis or cholestasis > 5 VVN, bilirrubina >3)



Immune-related cholangitis induced by immune checkpoint inhibitors: a systematic review of clinical features and management

Borui Pi^{a,*}, Jin Wang^{b,*}, Yifan Tong^c, Qiao Yang^a, Fangfang Lv^a and Yunsong Yu^a

European Journal of Gastroenterology & Hepatology 2021

Nivolumab	28
Pembrolizumab	19
Atezolizumab	2

Latencia variable (1 a 27 ciclos)

Mayor en grandes ductos (7 vs 2.5; p 0.02)

Revisión... 53 casos
(29 grandes ductos, 12 ductos pequeños, y 12 combinado)

FAL p: 1328 (237 a 4635)

LD > SD (1683 vs 671; p 0,02)

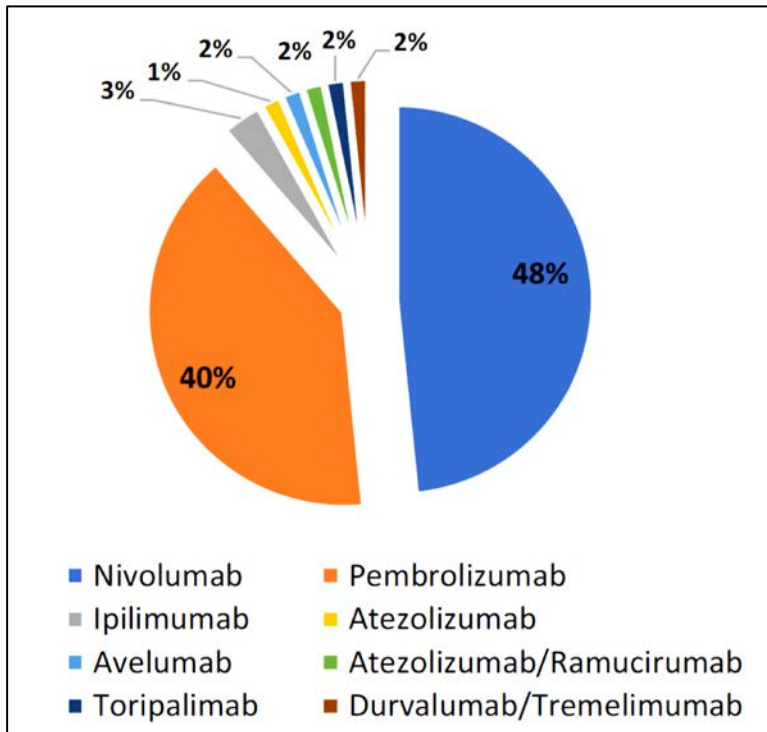
Discontinuación: todos

Inmunosupresión: 48/53

70% respuesta parcial, 21% peoría

Secondary Sclerosing Cholangitis due to Drugs With a Special Emphasis on Checkpoint Inhibitors

Einar S. Bjornsson^{1,2}  | Daiana Arnedillo^{3,4} | Fernando Bessone^{3,4}  *Liver International*, 2025; 45:e16163



Principal causa de colangitis esclerosante farmacológica

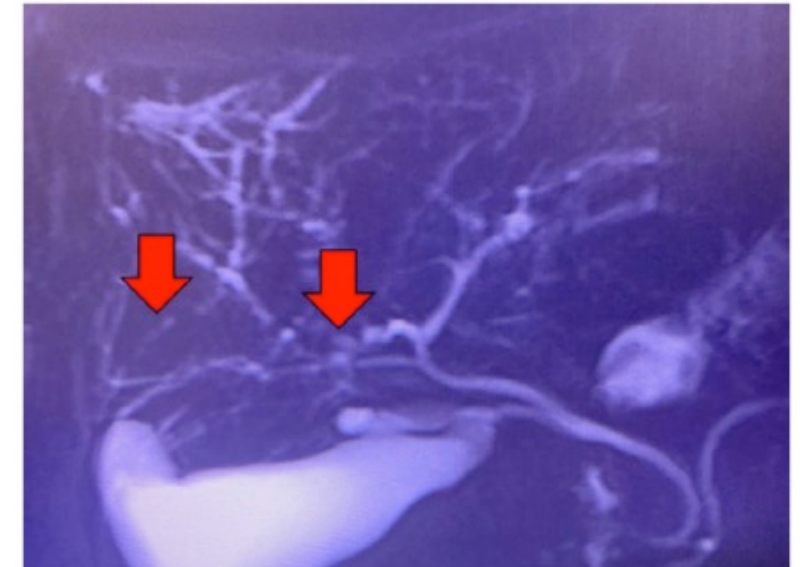
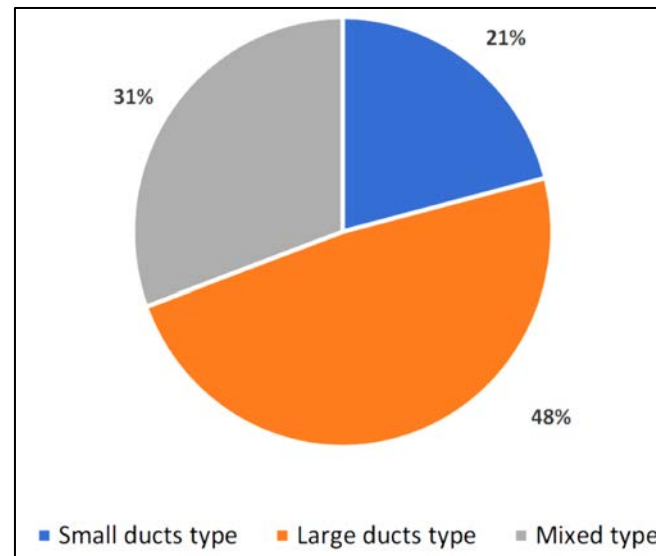


FIGURE 2 | 62-year-old male patient who developed SSC after 3 months of treatment with Pembrolizumab and ipilimumab for kidney cancer. Alternating areas of stenosis with bile duct dilation on MRCP are shown in this picture (Arrows). (Courtesy of Prof. Raymundo Paraná from Federal University of Salvador de Bahia, Brazil).

Hepatitis inmunomediada x
IPI sin respuesta a corticoides
(patrón colestásico/mixto)



Colangitis IR/ES?



Biopsia Hepática
Colangiografía

n = 117 patients
CHeckpoint Inhibitor-induced Liver Injury



Age: 63 years old
Male: 53.8%

82% Grade 3 or 4

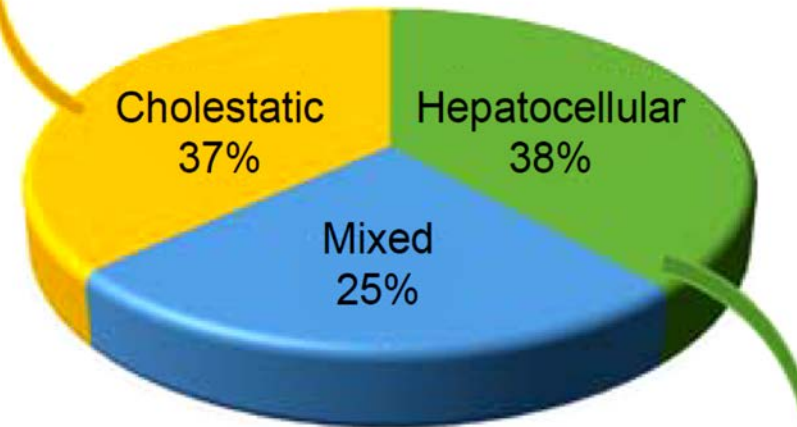
Anti-PD(L)1
60%

Anti-PD(L)1 +
anti-CTLA-4
36%

Anti-CTLA-4
3%

Anti-PD(L)1 +
anti-LAG-3
1%

Clinical pattern



Anti-PD(L)-1
Bile duct injury
Histology: biliary injury

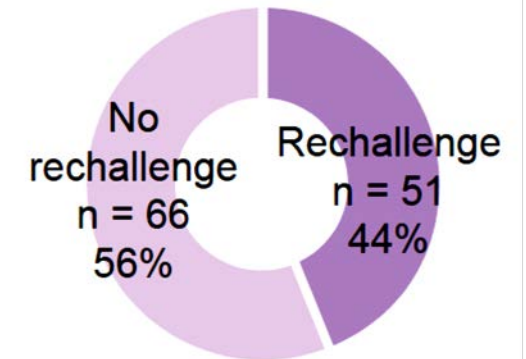
Anti-CTLA-4 + anti-PD-1

Resolución espontánea: 17 (15%)

Esteroides: 62 (53%)

Esteroides + UDCA: 31 (26%)

UDCA solo: 7 (6%)



Hepatitis recurrence
n = 12
23.5%

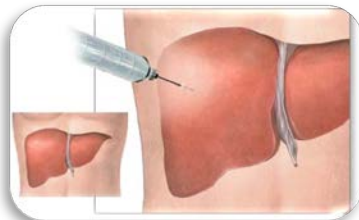
Antes de iniciar IPCI: bioquímica hepática, HBV y HCV status, imagen.

Durante la terapia: bioquímica hepática antes de cada infusión

Enzimas normales o $< 2-3$ VVN, con
brb normal: continuar la terapia y
volver a chequear



Chequear antes de cada
ciclo



nivel de enzimas ≥ 5 VVN



Interrumpir, descartar otras causas de
lesión hepática y referir al hepatólogo.



Considerar MRI si patrón colestásico y evaluar CES

- Descartar otras causas o reforzar el diagnóstico
- Colestasis prolongada sin lesión ductal en la resonancia
- Agravación a pesar del tratamiento

Before starting therapy: liver chemistry, HBV and HCV status, imaging.

During therapy: liver chemistry before each infusion

Normal enzymes or < 2-3 ULN: continue but check again

≥ 5 ULN enzymes levels

Continue but check again every cycle.

Stop therapy, rule out other causes of liver injury, and refer to an hepatologist.

≥ 5 ULN enzymes levels

Normal bilirubin level

Watch & wait, check weekly

Normalization

NO improvement or worse

Consider Treatment

n = 117 patients
CHeckpoint Inhibitor-induced Liver Injury



Age: 63 years old
Male: 53.8%

82% Grade 3 or 4

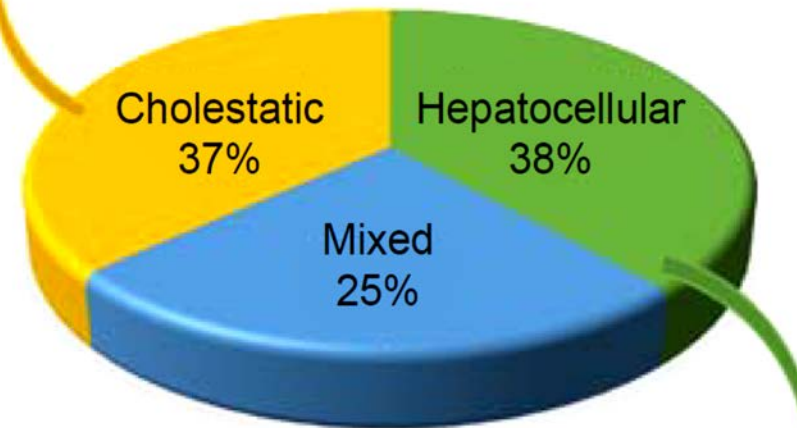
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Clinical pattern



Anti-PD(L)-1
Bile duct injury
Histology: biliary injury

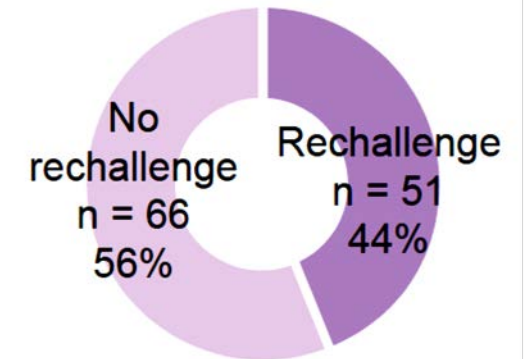
Anti-CTLA-4 + anti-PD-1

Resolución espontánea: 17 (15%)

Esteroides: 62 (53%)

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Hepatitis recurrence

n = 12
23.5%

REVIEW

OPEN

Hepatology Communications. 2024;8:e0525.



Steroid-refractory immune checkpoint inhibitor (ICI) hepatitis and ICI rechallenge: A systematic review and meta-analysis

Soo Young Hwang^{1,2} | Pinghsin Hsieh¹ | Wei Zhang²

Revisión sistemática & meta análisis
(44 estudios de Asia, Europa, NA y Australia)



1856 ICILI (56% grade 3-4)



1184 recibieron esteroides

Duración de tratamiento variable (3 a 365 días).

Gran variación en las dosis : 0,5 mg/k prednisona... 2 mg/k metilprednisolona

82 casos refractarios: micofenolato 83%

40%
rechallenge



22%
recurrencia

Retreatment with Checkpoint inhibitors after a severe immune-related hepatitis:
Results from a prospective multicenter study

Mar Riveiro-Barciela, Ana Barreira-Díaz, Ana Callejo-Pérez, Eva Muñoz-Couselo, Nely Díaz-Mejía, Álvaro Díaz-González, María-Carlota Londoño, Maria-Teresa Salcedo, María Buti

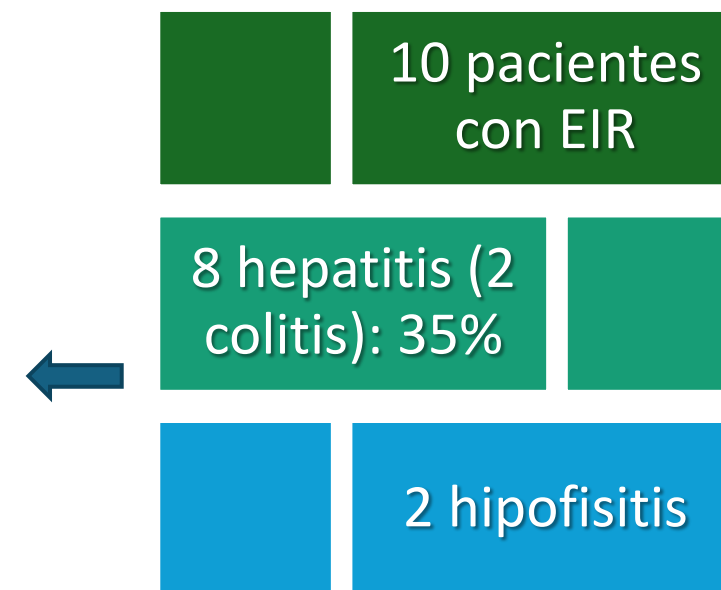
RUCAM score, n(%)		
Possible		1 (4.3%)
Probable		8 (34.8%)
Highly probable		14 (60.9%)
CTCAE grade of the hepatitis, n(%)		
3		19 (82.6%)
4		4 (17.4%)
DILI severity score, n(%)		
Mild		19 (82.6%)
Moderate		4 (17.4%)

Prospectivo, 23 pacientes.

Type of CPI, n(%)	
Anti-PD1 or anti-PD1/PD-L1	18 (78.3%)
Anti-CTLA-4 ± anti-PD1	4 (17.3%)
CD40 agonist antibodies	1 (4.3%)

Bilirubin (mg/dL), Md (IQR) 0.86 (0.6-1.1)

Leve: 4
Moderado 3
Severo: 1





KEY POINTS

- ✓ Los IPCI tienen como contrapartida a su eficacia antitumoral, severos eventos inmunomediados (consecuencia de la pérdida de la auto-tolerancia).
- ✓ El patrón de presentación es variable, rara vez con falla hepática.
- ✓ El tratamiento debe ser la suspensión del agente sospechoso con o sin un curso de esteroides.
- ✓ La evaluación histológica y la decisión del retratamiento deben ser analizados caso a caso.