SUPPLEMENTARY MATERIALS

Role of Underlying Liver Pathology in the Development of Immune Related Hepatitis: a case control study

Authors

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ICD-10 Code Category	ICD-10 Codes	irH n=103	Other n=622
Toxic Liver Disease	K71.1, K71.7, K71.8, K71.9	11	2
Acute/Subacute Hepatic Failure	K72.0	8	21
Hepatic failure	K72.9	0	73
Autoimmune Hepatitis	K75.4	41	0
Inflammatory Liver Disease, Unspecified	K75.9	15	3
Fatty Liver	K76.0	5	56
Liver Congestion	K76.1	0	2
Portal Hypertension	K76.6	2	60
Hepatorenal Syndrome	K76.7	0	11
Hepatopulmonary Syndrome	K76.81	0	2
Other liver disease	K76.89, K76.9	52	470
Biliary Pathology	K83.1, K83.8, K83.09	8	51
Abnormal blood tests	R79.89, R94.5	48	650

Supplementary Table 1 ICD-10 code attributions of patients identified for manual chart review. 725 patients had ICD-10 code associations and biochemical criteria to qualify for manual chart review during which 103 patients were found to have provider documented diagnoses of irH. ICD-10 codes of interest must have been assigned within 1 year of ICI initiation.

Value	ALT	AST	AP	Total Bilirubin	Albumin
No irH Baseline (n=194)	19.0 [11.0-34.5]	19.0 [14.0-38.0]	79.0 [61.0-133]	0.5 [0.4-0.6]	3.8 [3.3-4.1]
Cirrhosis (n=22)	70.0 [39.0-75.0]	79.5 [50.3-108]	127 [102-146]	1.3 [1.2-2.4]	3.5 [2.5-3.7]
Liver Mets (n=33)	23.0 [13.0-36.3]	24 [20.0-41.8]	127 [27.3-167]	0.4 [0.3-0.6]	3.6 [3.1-3.9]
Abnormal baseline (n=100)	35.0 [23.0-100]	38.0 [19.0-113]	134 [78.0-232]	0.4 [0.3-0.7]	3.6 [2.9-3.9]
irH Baseline (n=97)	18.0 [13.0-31.5]	20.0 [17.0-26.5]	69.0 [56.0-82.5]	0.5 [0.4-0.7]	4.0 [3.7-4.3]
Cirrhosis (n=5)	44.0 [36.5-51.5]	45 [28.0-63.0]	80.0 [69.3-107]	1.0 [0.6-1.6]	3.8 [3.5-4.0]
Liver Mets (n=28)	17.5 [11.0-26.8]	19.5 [15.0-27.3]	65.5 [46.8-81.0]	0.5 [0.4-0.7]	3.9 [3.8-4.1]
Abnormal baseline (n=26)	26.0 [15.0-56.0]	36.5 [22.0-53.3]	78.5 [62.3-145]	0.5 [0.4-0.7]	3.6 [3.3-4.1]
irH peak (n=97)	222 [149-355]	164 [106-370]	148 [97.0-348]	0.9 [0.5-1.8]	3.4 [3.1-3.7]
Cirrhosis (n=5)	158 [149-198]	192 [88.0-194]	144 [103-174]	2.7 [0.6-3.8]	3.3 [2.8-3.4]
Liver Mets (n=28)	202 [135-306]	144 [106-228]	123 [64.0-264]	0.9 [0.6-1.4]	3.5 [3.3-3.8]
Abnormal baseline (n=26)	243 [150-556]	162 [104-416]	144 [108-223]	1.1 [0.6-3.4]	3.2 [2.8-3.7]

Supplementary Table 2 Liver biomarker profile in irH cases, controls and selected subpopulations. Median lab values were calculated and reported with interquartile range [IQ1-IQ3]. Presence of liver metastases was recorded at ICI initiation. Patients were considered to have abnormal baseline labs if any one value exceeded the upper or lower limit of normal (Table 1). For irH peak, maximum values are reported for all laboratory tests except albumin, for which the minimum value was recorded during irH course. Abbreviations: Aspartate transaminase (AST), alanine transaminase (ALT), Alkaline phosphatase (AP).