

Table 4: Comparisons of the parameters of the IAHG scoring system between patients with chronic liver diseases* (n = 423) and patients with coincidence of AIH and any kind of liver disorder (n = 24).

Characteristics	Patients with liver diseases* no. of patients (%)	Patients with coincidence of AIH and any kind of liver disorder no. of patients (%)	P-value
Gender			
Female	231 (54.6)	12 (50)	NS
Male	192 (45.5)	12 (50)	
ALP/ALT ratio			
Positive: score +2	338 (79.9)	20 (83.3)	NS
Negative: score 0, -2	85 (20.1)	4 (16.7)	
Serum globulin or IgG above normal			
Positive (score ≥ 1)	202 (47.8)	17 (70.8)	0.035**
Negative (score 0)	221 (52.2)	7 (29.2)	
ANA, SMA or anti-LKM			
Positive (titre $\geq 1:40$)	335 (79.2)	23 (95.8)	0.06***
Negative	88 (20.8)	1 (4.2)	
AMA			
Positive (titre $\geq 1:40$)	49 (11.6)	4 (16.7)	NS
Negative	374 (88.4)	20 (83.3)	
Hepatitis viral markers			
Yes	216 (51.1)	8 (33.3)	NS
No	207 (48.9)	16 (66.7)	
History of illicit drug use			
Yes	25 (5.9)	0	NS
No	398 (94.1)	24 (100)	
Average alcohol intake			
<25 g/day	325 (76.8)	21 (87.5)	NS
>60 g/day	98 (23.2)	3 (12.5)	
Histological score			
Positive (score > 0)	58 (13.7)	13 (54.2)	<0.001**
Negative (score ≤ 0)	365 (86.3)	11 (45.8)	
Aggregate histological score (mean \pm SD)	-4 \pm 3.3	0.38 \pm 3.72	<0.001****
Other autoimmune disease			
Yes	24 (5.7)	7 (29.2)	0.001**
No	399 (94.3)	17 (70.8)	
Aggregate AIH score (mean \pm SD)	2.5 \pm 4.2	10 \pm 4.1	<0.001****

Abbreviations are same as in text; NS: not statistically significant; SD: standard deviation; *Excluding AIH patients (n = 43) and patients with coincidence of AIH and any kind of liver disorder (n = 24); **Two by two x square after Yates' correction; ***Fisher's exact test; **** Mann-Whitney U test.

compared to that found in patients with chronic liver diseases (2.5 ± 4.23 ; n = 423; $p < 0.001$; Figure 1) and significantly lower than the aggregate AIH score observed in patients with AIH (17 ± 3.05 ; n = 43; $p < 0.001$, Table 6 and Figure 1).

Discussion

The major point arising from the present study is that the IAHG scoring system is highly specific for excluding AIH with specificity values ranging between 92.3%–100% but not so sensitive in order to detect the association of AIH with any kind of other liver disease. Indeed, the sensitivity of the score for the detection of either AIH/overlap syndromes or the coincidence of AIH with other liver disorders was rather low (50% and 78.6%, respectively). Furthermore, we observed that none of these patients with AIH/overlap syndromes or AIH with concurrent other liver disorders achieved a score above 15 (definite AIH),

which is in accordance with a very recent report [32]. Therefore, our findings along with the assumption that the IAHG scoring system has been designed for study purposes only [5] may indicate the need for the development of a less complicated system for the diagnosis of AIH in every day use [33].

Among the large spectrum of liver diseases ALD, CVH and NAFLD are the most frequent entities that are being diagnosed in patients with liver disorders. However, their presence does not exclude by definition, the possibility of the coexistence of AIH. Under this context, non-organ specific autoantibodies commonly occur in patients with CVH [12,27,28,31,34-37], NAFLD [7,38,39] and ALD [40,41]. Furthermore, histological features similar to that observed in AIH as the presence of interface hepatitis may also occur in other liver diseases [8]. In this study, the specificity of the IAHG scoring system regarding the exclusion