

Table 1: Patients' characteristics.

Parameters	Patients with liver diseases* (n = 423)	Patients with coincidence of AIH and any kind of liver disorder (n = 24)**	Patients with AIH/overlap syndromes (n = 10)	Patients with coincidence of AIH and other liver disease (n = 14)	Patients with AIH (n = 43)
Gender (F/M)	231/192	12/12	5/5	7/7	33/10
Age mean \pm SD (years)	51.6 \pm 22.7	54.9 \pm 18.6	49.6 \pm 21.6	57.7 \pm 15.5	52.3 \pm 15.7
Serum globulin or IgG above normal (pos/neg; pos = score \geq 1)	202/221	17/7	7/3	10/4	34/9
Alcohol abuse (>60 g/day; yes/no)	98/325	3/21	0/10	3/11	1/42
Drug use (yes/no)	25/398	0/24	0/10	0/14	1/42
Other autoimmune diseases (yes/ no)	24/399	7/17	5/5	2/12	18/25
ANA or SMA or anti-LKM (pos/neg) (positive titre \geq 1:40)	335/88	23/1	9/1	14/0	43/0
AMA (pos/neg)	49/374	4/20	4/6	0/14	0/43
Histology (pos/neg) (pos = score > 0, neg = score \leq 0)	58/365	13/11	3/7	10/4	35/8
Total histologic score \pm SD	-4 \pm 3.3	0.38 \pm 3.72	-2.1 \pm 4.4	2.14 \pm 1.7	2.73 \pm 1.98
Median (range)	-5 (-11 to +5)	1 (-8 to +4)	0 (-8 to +4)	3 (0 to +4)	3 (-3 to +5)

Abbreviations are same as in text. *Excluding AIH patients (n = 43) and patients with coincidence of AIH and any kind of liver disorder (n = 24); **Means the coexistence of AIH with any kind of other liver disease; M = male; F = female.

with coexistence of AIH and other liver disease (n = 14) we found that (Table 5): (a) patients with AIH/overlap syndromes had significantly increased prevalence of AMA detection (p = 0.02), lower prevalence of viral hepatitis markers (p = 0.002), lower average alcohol intake (p = 0.07) and higher frequency of concurrent autoimmune diseases (p = 0.0005) compared to the group of patients with chronic liver disorders other than AIH; (b) patients with coincidence of AIH and other liver disease had significantly more frequently a positive score (≥ 1) in liver biopsy (p = 0.0005) and significantly higher total histological score (p = 0.0005) compared to the group of patients with chronic liver disorders other than AIH and (c) patients with AIH/overlap syndromes had significantly higher prevalence of AMA detection (p = 0.02), lower prevalence of viral hepatitis markers (p = 0.006) and lower total histological score (p = 0.01) compared to patients with AIH concurrent with other liver diseases. However, after binary logistic regression analysis the presence of other autoimmune disease was identified as the

only independent predictor for the presence of AIH/overlap syndromes (p = 0.001) while the total histological score from liver biopsy was identified as the only independent predictor for the coexistence of AIH and other liver disease (p < 0.001).

Patients with AIH/overlap syndromes and coexistence of AIH with other liver diseases (n = 24) were significantly more frequent of male gender (50% vs 23.3%; p = 0.025), had higher frequency of a negative score (≤ 0) in liver biopsy (45.8% vs 18.6%; p < 0.02), higher frequency of AMA positivity (16.7% vs 0%; p < 0.02), higher prevalence of viral hepatitis markers (33.3% vs 0%; p < 0.001) and lower total histological score (0.38 \pm 3.72 vs 2.73 \pm 1.98; p = 0.004) compared with patients suffering from AIH (n = 43). However, the binary logistic regression analysis showed that male gender was the only independent factor that was able to differentiate the coexistence of AIH with any kind of liver disorder from the presence of isolated AIH (p = 0.025).

Table 2: Specificity of the IAHG scoring system.

Patients with liver diseases* (n = 423)	Specificity
HBV (n = 109)	108/109 (99.1)
HCV (n = 95)	94/95 (98.9)
HDV (n = 4)	4/4 (100)
ALD (n = 28)	28/28 (100)
NAFLD (n = 55)	53/55 (96.4)
ACLD (n = 77)	74/77 (96.1)
PBC (n = 51)	50/51 (98)
PSC (n = 26)	24/26 (92.3)
Liver disorders of undefined origin (n = 32)	31/32 (96.9)
Miscellaneous hepatic disorders (n = 23)	23/23 (100)
	Overall specificity: 415/423 (98.1%)

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