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Autoimmune Hepatitis: Diagnostic and Management Challenges in 26 Cases in Libreville, Gabon

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Abstract

Introduction: Autoimmune hepatitis (AIH) is a chronic immune-mediated inflammatory liver disease, rarely described in sub-Saharan Africa where chronic viral hepatitis B and C predominate. This study aimed to describe its epidemiological features and management challenges in Libreville. **Materials and Method:** A retrospective observational study was conducted from January 2023 to October 2025 at the Libreville University Hospital. Epidemiological, diagnostic, and outcome data were collected from patients followed for AIH. Statistical analysis included univariate analysis (Fisher's exact test, Mann-Whitney) and multivariate penalized logistic regression, with significance set at $p < 0.05$. **Results:** Among 256 patients followed for chronic liver disease, 26 had AIH (10.15%). Mean age was 34.5 ± 11.7 years, with female predominance (69.2%). Formal immunological subtyping was achieved in only 8 patients (30.8%) because of limited access to autoantibody testing. Among these patients, AIH type 1 was the most frequent subtype. Liver histology was accessible in only 19.23% of patients due to severe coagulation disorders. Five deaths were recorded (19.23%) despite corticosteroid therapy in all patients. On univariate analysis, factors associated with mortality included PT < 50% ($p = 0.053$), elevated bilirubin (OR = 36.0; $p = 0.006$), ascites (OR = 76.0; $p = 0.002$), and esophageal varices (OR = 28.5; $p = 0.016$). On multivariate analysis, three independent predictors of death were identified: PT < 50% (OR = 1.98; $p = 0.012$), elevated bilirubin (OR = 2.83; $p = 0.024$), and ascites (OR = 3.59; p =

0.022), with an AUC of 0.935. **Conclusion:** AIH represents a significant cause of chronic liver disease at the Libreville University Hospital, predominantly affecting young women and associated with high mortality related to late diagnosis.

Keywords

Autoimmune Hepatitis, Cirrhosis, Mortality, Libreville

1. Introduction

Autoimmune hepatitis (AIH) is a chronic immune-mediated inflammatory liver disease of unknown etiology, associated with probable genetic predisposition, which may progress to hepatic insufficiency and cirrhosis [1]. Although its incidence has been rising since the early 2000s, and case series from Senegal, Madagascar, and Gabon have documented its occurrence in Africa, the diagnosis of AIH remains challenging [1]-[3]. The simplified diagnostic criteria proposed by the International Autoimmune Hepatitis Group (IAIHG) and endorsed by recent European Association for the Study of the Liver (EASL) guidelines rely heavily on liver histology; however, this approach does not reflect the realities of African clinical settings, where liver biopsy is frequently inaccessible in patients with coagulation disorders [4] and where pathologists with expertise in autoimmune liver diseases are scarce [5] [6]. Furthermore, AIH is associated with other autoimmune conditions in approximately 20% of cases, further complicating diagnostic workup [7]-[9]. Gronbaek *et al.* reported that diagnostic delay in AIH is associated with a sixfold increase in the risk of death and noted that the disease carries a more severe prognosis in populations of African origin, in males, in children, and in patients with concomitant autoimmune diseases [9] [10]. It is in this context that we undertook the present study to describe the epidemiological, diagnostic, and clinical characteristics of a cohort of 26 AIH patients followed in Libreville, Gabon.

2. Patients and Methods

2.1. Study Design and Setting

This was a retrospective, observational study conducted over 34 months, from January 1, 2023 to October 31, 2025, at the Department of Hepato-Gastroenterology of the Libreville University Hospital (CHUL), the primary national tertiary referral center for chronic liver diseases in Gabon.

2.2. Study Population

During the study period, all consecutive patients managed for chronic liver disease in the Department of Hepato-Gastroenterology of the Libreville University Hospital (CHUL) were screened for autoimmune hepatitis (AIH). A total of 256

patients with chronic liver disease were evaluated. All patients underwent a standardized diagnostic work-up including clinical assessment, liver biochemistry, viral hepatitis serology (HBsAg and anti-HCV), HIV serology, abdominal ultrasonography, and a detailed history of alcohol consumption and hepatotoxic drug exposure. Patients diagnosed with chronic viral hepatitis (n = 115), alcoholic liver disease (n = 107), or other chronic liver diseases (n = 8) were excluded. The remaining 26 patients fulfilled the simplified International Autoimmune Hepatitis Group (IAIHG) diagnostic criteria (score ≥ 6) and constituted the final study population, including 21 patients with probable AIH (score = 6) and 5 with definite AIH (score ≥ 7). The diagnosis of autoimmune hepatitis was established using the simplified International Autoimmune Hepatitis Group (IAIHG) scoring system proposed by Hennes *et al.* In our resource-limited setting, the score was based on the components that were available for each patient, including the exclusion of viral hepatitis, autoantibody testing when available, liver histology when feasible, and serum protein electrophoresis. Because quantitative serum IgG measurement was available in only two patients, polyclonal hypergammaglobulinemia demonstrated by serum protein electrophoresis was used as a surrogate marker of increased IgG concentration to support the diagnostic assessment, in accordance with routine clinical practice in our center. Patients with a simplified IAIHG score ≥ 6 were retained for the present study. Alternative causes of chronic liver disease were systematically assessed according to the diagnostic resources available. Drug-induced liver injury was excluded through a detailed medication history, including herbal and traditional medicines. Chronic viral hepatitis B and C and HIV infection were excluded by serological testing. Alcohol-related liver disease was excluded based on clinical history. Biliary obstruction was ruled out by abdominal ultrasonography, with additional imaging performed when clinically indicated and available. Metabolic liver diseases were excluded on the basis of clinical, biological, and imaging findings whenever feasible.

2.3. Treatment and Outcome Assessment

All patients received first-line treatment with oral prednisone at an initial dose of 1 mg/kg/day. Prednisone was tapered progressively according to clinical and biochemical response, with dose reductions of 2.5 - 5 mg every 1 - 2 weeks until 10 mg/day was reached, followed by reductions of 1 - 2.5 mg every 2 - 4 weeks to achieve a maintenance dose of 5 - 10 mg/day. Azathioprine was introduced at an initial dose of 50 mg/day and increased, when tolerated, to a maintenance dose of 1 - 2 mg/kg/day as a steroid-sparing agent. A favorable biochemical response was defined as normalization or marked improvement of liver biochemical parameters, including serum transaminases and bilirubin levels, during follow-up. A disease flare was defined as a recurrence of biochemical activity after an initial response, requiring intensification or re-escalation of immunosuppressive therapy.

2.4. Study Variables

The following variables were collected: sociodemographic data (sex, age, occupa-

tion, educational level, marital status, place of origin, year of diagnosis); chief complaints; personal and family history (associated autoimmune diseases, comorbidities, use of herbal medicines); biological data (serum transaminases, alkaline phosphatase, GGT, total bilirubin, serum protein electrophoresis, prothrombin time, INR); available autoantibodies (antinuclear antibodies [ANA], anti-smooth muscle antibodies [ASMA], anti-liver-kidney microsomal type 1 antibodies [anti-LKM1], anti-soluble liver antigen antibodies [anti-SLA]) and IAIHG score. Outcome data included: number of disease flares, number of hospitalizations, complications, clinical response, and treatment interruptions.

2.5. Follow-Up and Outcome Assessment

Patients were followed from the date of AIH diagnosis until death, the last recorded outpatient visit, the last hospitalization, or the end of the study period (31 October 2025), whichever occurred first. The median follow-up duration was 18 months. Survival status was determined from hospital medical records, using the most recent outpatient consultation for patients followed as outpatients or the last hospitalization for those requiring inpatient care. The primary outcome was all-cause mortality during follow-up. Missing data were not imputed. Patients with incomplete immunological investigations (serum IgG quantification, autoantibody testing, or liver biopsy) were retained in the analysis when sufficient clinical, biological, and diagnostic information was available to establish the diagnosis of autoimmune hepatitis according to the simplified IAIHG criteria.

2.6. Statistical Analysis

Data were entered and analyzed using Epi Info 7.2.7.0 and Microsoft Excel 2024. Continuous variables were expressed as mean ± standard deviation or as median with range, depending on their distribution. Categorical variables were expressed as frequencies and percentages. As the study enrolled all eligible cases during the study period, no a priori sample size calculation was performed. Univariate analysis compared deceased patients (n = 5) with survivors (n = 21) using Fisher's exact test for categorical variables and the Mann-Whitney U test for continuous variables. Variables with $p < 0.20$ on univariate analysis were entered into the multivariate model. Given the low number of events and near-complete separation between groups, penalized logistic regression with 95% confidence intervals was applied. Statistical significance was defined as $p < 0.05$.

2.7. Ethical Considerations

Patient confidentiality and anonymity were ensured through individual identification numbers. Written informed consent was obtained from all adult patients; parental assent was obtained for minors. The study was conducted in accordance with good clinical practice guidelines as defined by the Declaration of Helsinki. Institutional approval was granted by the ethics committee of the Libreville University Hospital.

3. Results

3.1. Frequency

During the study period, 256 consecutive patients were managed for chronic liver disease at CHUL. After exclusion of patients with chronic viral hepatitis (n = 115), alcoholic liver disease (n = 107), and other chronic liver diseases (n = 8), 26 patients fulfilled the simplified IAIHG diagnostic criteria for autoimmune hepatitis and were included in the study. This corresponded to a hospital frequency of 10.15% among patients managed for chronic liver disease. Of these, 21 patients (80.8%) had probable AIH (IAIHG score = 6), and 5 (19.2%) had definite AIH (IAIHG score ≥ 7) (Figure 1).

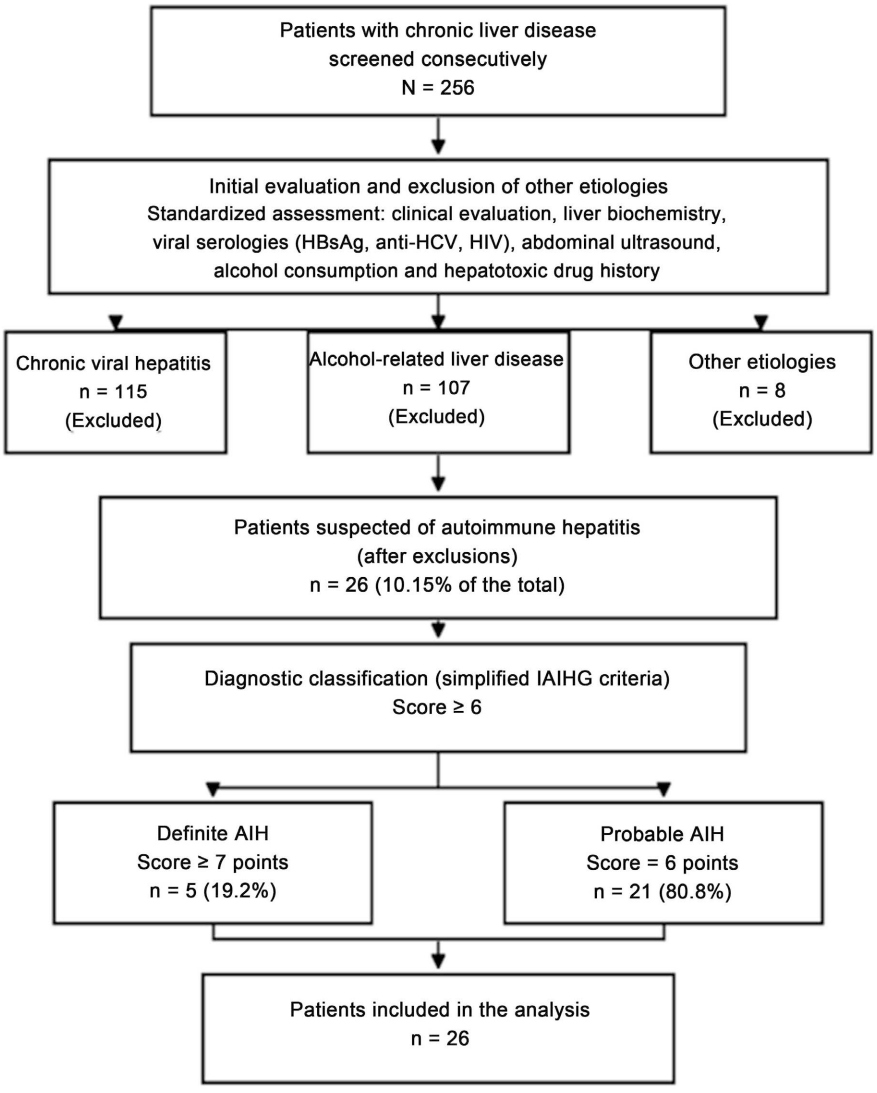

Figure 1. flowchart.

3.2. Sociodemographic Characteristics

As shown in Table 1, the mean age was 34.5 ± 11.7 years (median: 32.5 years;

range: 11 - 57 years). The 30 - 39 age group was the most represented (34.6%). A marked female predominance was observed, with 18 women and 8 men (sex ratio: 0.44; 69.2% female). Two patients (7.7%) were minors. Regarding occupation, students and trainees constituted the largest group (42.3%), followed by unemployed individuals (34.6%). The majority of patients were single (88.5%).

Table 1. Sociodemographic characteristics of AIH patients at the CHUL (n = 26).

Variables	(N = 26)	%
Mean age ± SD (years)	34.5 ± 11.7	
Median (range)	32.5 (11 - 57)	
Sex		
Female	18	69.2
Male	8	30.8
Sex ratio (M/F)	0.44	
Age group		
<20 years	2	7.7
20 - 29 years	6	23.1
30 - 39 years	9	34.6
40 - 49 years	5	19.2
≥50 years	4	15.4
Occupation		
Unemployed	9	34.6
Students/Trainees	11	42.3
Administrative staff	2	7.7
Healthcare workers	4	15.4
Marital status		
Single	23	88.5
Married	3	11.5

3.3. Chief Complaints

As detailed in Table 2, isolated manifestations represented the most frequent mode of presentation, predominantly isolated abnormal liver function tests (23.1%). Combinations of two manifestations accounted for approximately one-third of patients, the most frequent associations being jaundice with abnormal liver function tests, jaundice with abdominal pain, and hepatomegaly with jaundice (7.7% each). Three patients (11.5%) presented with complex clinical pictures involving three or more manifestations, suggesting more advanced hepatic disease at admission. Incidental discovery on routine biological testing was observed in 3 patients (11.5%).

Table 2. Frequency of clinical manifestation combinations (n = 26).

Clinical manifestations	n	%
Isolated manifestations		
Isolated abnormal liver function tests	6	23.1
Isolated jaundice	1	3.8
Isolated hepatomegaly	2	7.7
Isolated ascites	1	3.8
Isolated abdominal pain	1	3.8
Isolated impairment of general condition	1	3.8
Combinations of two manifestations		
Jaundice + Abnormal liver function tests	2	7.7
Jaundice + Abdominal pain	2	7.7
Hepatomegaly + Jaundice	2	7.7
Ascites + Abnormal liver function tests	1	3.8
Hepatomegaly + Ascites	1	3.8
Combinations of three or more manifestations		
Jaundice + Hepatomegaly + Abnormal liver function tests	2	7.7
Jaundice + Abdominal pain + Hepatomegaly	1	3.8
Incidental discovery	3	11.5

3.4. Medical History and Background

No patient had a personal or family history of autoimmune disease. Hypertension was present in 3 patients (11.5%) and diabetes mellitus in 3 others (11.5%).

3.5. Biological Data

As shown in Table 3, active hepatocellular necrosis at diagnosis was evidenced by alanine aminotransferase (ALT) levels up to 6.2-fold the upper limit of normal (ULN) in 9 patients (34.61%) and aspartate aminotransferase (AST) levels up to 7-fold ULN in 8 patients (30.76%). Gamma-glutamyltransferase (GGT) was elevated up to 5-fold ULN in 25 patients (96.1%). Alkaline phosphatase (ALP) was elevated in 42.3% of patients. Total bilirubin was elevated in 23.1% of patients. Hypergammaglobulinemia was present in all patients, exceeding 19.5 g/L in 88.5%. Mean serum IgG level was 24.5 ± 8.1 g/L (n = 2). Prothrombin time was below 50% in 69.27% of patients.

Table 3. Main laboratory parameters at inclusion (n = 26).

Laboratory parameter	Threshold value	n (n = 26)	%
ALT (alanine aminotransferase)	≤6.2 N	9	34.61
AST (aspartate aminotransferase)	≤7 N	8	30.76

Continued

GGT (gamma-glutamyltransferase)	≤5 N	25	96.1
ALP (alkaline phosphatase)	≤5 N	11	42.3
Total bilirubin	≤6.2 N	6	23.1
Platelet count	≤150,000/mm^3	20	76.92
Gamma-globulins	>19.5 g/L	23	88.5
Prothrombin time (PT)	≥50%	8	30.77
Prothrombin time (PT)	≤50%	18	69.2

3.6. Immunological Work-Up

As illustrated in Table 4, antinuclear antibodies (ANA) were the most frequently tested autoantibody (30.77%), with positivity in only 2 of 8 tested patients (25%). Anti-smooth muscle antibodies (ASMA) were the second most frequently tested (26.92%), with positivity in 1 of 7 patients (14.3%). Anti-LKM1 antibodies, tested in 4 patients (15.38%), were positive in 50% of cases, suggesting AIH type 2. Anti-mitochondrial antibodies were detected in 2 of 3 tested patients (66.7%). Anti-SLA antibodies were negative in both patients tested. Serum IgG quantification was performed in only 2 patients (7.7%) and was elevated in both. In the remaining patients, serum protein electrophoresis demonstrated polyclonal hypergammaglobulinemia and was used as supportive evidence in the diagnostic assessment when quantitative IgG measurement was unavailable.

Table 4. Results of the immunological work-up (n = 26).

Autoantibody	Tests performed	%	Positive results	%
Antinuclear antibodies (ANA)	8	30.77	2	25.00
Anti-smooth muscle antibodies (ASMA)	7	26.92	1	14.29
Anti-LKM1 antibodies	4	15.38	2	50.00
Anti-mitochondrial antibodies (AMA)	3	11.53	2	66.67
Anti-SLA antibodies	2	7.70	0	0.00

3.7. IAIHG Score and AIH Classification

As shown in Table 5, all 26 patients fulfilled the simplified IAIHG diagnostic criteria (score ≥ 6). Formal immunological subtyping was possible in only 8 patients (30.8%) because of limited availability of autoantibody testing. Among these patients, AIH type 1 was the most frequent subtype (3/8), followed by overlap syndrome (3/8) and AIH type 2 (2/8). The remaining 18 patients (69.2%) could not be formally subtyped because immunological investigations were incomplete.

3.8. Imaging and Histological Findings

Abdominal ultrasound was performed in all patients (100%). It revealed hepato-

megaly with heterogeneous hepatic parenchyma in 12 patients (46.15%), diffuse increased echogenicity in 2 patients (7.69%), and signs of portal hypertension in 3 patients (11.53%). Ultrasound findings were unremarkable in 9 patients (34.61%). Liver biopsy by percutaneous approach was accessible in only 5 patients (19.23%), owing to severe coagulation disorders in the remainder. In all biopsied patients, histology showed characteristic features of AIH: marked interface hepatitis (piecemeal necrosis) with a dense lymphoplasmacytic inflammatory infiltrate in the portal spaces, extending beyond the limiting plate into the adjacent periportal hepatic parenchyma.

Table 5. IAIHG score and AIH classification (n = 26).

Parameter	n = 26	%
IAIHG score = 6 (probable AIH)	21	80.77
IAIHG score = 7 (definite AIH)	5	19.23
AIH subtype		
AIH type 1 (ANA/ASMA-positive)	3	11.54
AIH type 2 (anti-LKM1-positive)	2	7.69
Overlap syndrome	3	11.53

IAIHG: International Autoimmune Hepatitis Group; ANA: antinuclear antibodies; ASMA: anti-smooth muscle antibodies; LKM1: liver-kidney microsomal type 1.

3.9. Treatment

All 26 patients received first-line oral prednisone at an initial dose of 1 mg/kg/day, followed by gradual tapering according to clinical and biochemical response. Azathioprine was introduced at an initial dose of 50 mg/day and increased to 1 - 2 mg/kg/day when tolerated. A favorable biochemical response, defined as normalization or marked improvement of liver biochemical parameters, was observed in 17 patients (65.4%).

3.10. Outcome Data

As shown in Table 6, most patients experienced a favorable clinical course. No disease flare occurred in 65.4% of patients, while 23.1% and 11.5% experienced one and two or more flares, respectively. Most patients required only one hospitalization (69.2%). Hepatocellular insufficiency was the most frequent complication (69.2%), followed by portal hypertension with ascites (19.2%) and esophageal varices (15.4%). Treatment interruptions occurred in approximately one-third of patients, mainly due to voluntary discontinuation (15.4%), drug supply disruption (11.5%), or adverse drug reactions (7.7%). Overall, 21 patients (80.8%) had a favorable outcome, whereas five patients (19.2%) died during follow-up.

3.11. Statistical Analysis: Factors Associated with Death

Univariate analysis compared deceased patients (n = 5) with survivors (n = 21).

All factors significantly associated with mortality on univariate analysis reflected advanced disease stage: hepatocellular insufficiency (PT < 50%: p = 0.053; PT < 30%: p = 0.004), portal hypertension with ascites (OR = 76.0; p = 0.002), elevated total bilirubin (OR = 36.0; p = 0.006), esophageal varices (OR = 28.5; p = 0.016), elevated INR, and marked hypergammaglobulinemia (p < 0.001 for both). Conversely, demographic variables (sex, age), IAIHG score, use of herbal medicines, and overlap syndrome were not significantly associated with death (p > 0.05) (Table 7).

Table 6. Follow-up, complications, and treatment-related outcomes in the study population (n = 26).

Variables	n	%
Disease flares		
No flare	17	65.4
One flare	6	23.1
Two or more flares	3	11.5
Hospitalizations		
One hospitalization	18	69.2
Two hospitalizations	6	23.1
Three or more hospitalizations	2	7.7
Complications		
Hepatocellular insufficiency	18	69.2
Portal hypertension/Ascites	5	19.2
Esophageal varices	4	15.4
Treatment interruptions		
Voluntary discontinuation	4	15.4
Adverse drug reactions	2	7.7
Drug supply disruption	3	11.5
Favorable outcome	21	80.77
Death	5	19.23

Table 7. Factors associated with mortality in the study population (n = 26).

Variables	Deceased n (%) (n = 5)	Survivors n (%) (n = 21)	Crude OR	p-value
PT < 50%	5/5 (100%)	10/21 (47.6%)	∞	0.053
PT < 30% (severe HCI)	3/5 (60.0%)	0/21 (0%)	∞	0.004
Elevated total bilirubin	4/5 (80.0%)	2/21 (9.5%)	38.0	0.005
Ascites	4/5 (80.0%)	1/21 (4.8%)	80.0	0.002
Esophageal varices	3/5 (60.0%)	1/21 (4.8%)	30.0	0.014
INR (median [range])	4.5 [3.9 - 5.2]	2.5 [1.5 - 3.8]	2.2	<0.001

Continued

Gamma-globulins (mean)	29.2 g/L	21.9 g/L	1.56	<0.001
Use of herbal medicines	3/5 (60.0%)	6/21 (28.6%)	3.75	0.302
Age ≥ 34.5 years	3/5 (60.0%)	6/21 (28.6%)	3.75	0.302
Male sex	2/5 (40.0%)	6/21 (28.6%)	1.67	0.628

On multivariate penalized logistic regression (Table 8), three factors remained independently associated with death after adjustment: hepatocellular insufficiency (PT < 50%), elevated total bilirubin, and ascites. The model demonstrated excellent discriminatory performance (AUC = 0.935; dependent variable: death; n = 26, events = 5).

Table 8. Multivariable analysis of factors associated with mortality (n = 26).

Variable	Adjusted OR	95% CI	p-value
PT < 50% (hepatocellular insufficiency)	1.98	[1.36 - 3.24]	0.012
Elevated total bilirubin	2.83	[1.28 - 5.25]	0.024
Ascites	3.59	[1.56 - 6.22]	0.022

OR: odds ratio; CI: confidence interval; PT: prothrombin time. AUC ROC = 0.935.

4. Discussion

4.1. Epidemiological Profile

The hospital prevalence of AIH in our series was 10.15%, more than twice the rate previously reported by Itoudi *et al.* in Libreville in 2020, confirming the emergence of this disease, long considered rare in sub-Saharan Africa [1] [11]. A similar rising trend had been documented in Dakar, likely reflecting improvements in diagnostic capacity and evolving lifestyles in African populations [3] [5]. The marked female predominance (sex ratio: 0.44) is consistent with published literature and suggests a hormonal and genetic basis for disease susceptibility. The mean age of 34.5 ± 11.7 years is in keeping with data from other international series [2] [12]. The high proportion of students and unemployed individuals (76.9%) underscores the socioeconomic vulnerability of this population, with a direct impact on access to care and the ability to sustain the often-costly diagnostic workup and long-term therapeutic follow-up.

4.2. Clinical Presentation

The polymorphic clinical presentation observed in our series reflects the well-described heterogeneity of AIH at diagnosis. Isolated manifestations were the most frequent mode of presentation (46.2%), dominated by isolated abnormal liver biochemistry (23.1%), suggesting that many patients are identified at a sub-clinical stage through routine blood testing. This observation is reinforced by incidental discovery in 11.5% of patients, highlighting the insidious and often prolonged pre-

symptomatic course of AIH. The high prevalence of hepatitis B and C as the dominant etiologies of chronic liver disease in sub-Saharan Africa likely diverts clinical attention away from AIH, contributing to diagnostic delay in the absence of sufficient clinician awareness and access to appropriate immunological testing tools [7] [13].

4.3. Immunological Work-Up and Classification

Immunological evaluation was incomplete in a substantial proportion of patients, with specialized autoantibodies tested in only a minority of cases. Overall, formal AIH subtyping was achievable in only 30.77% of the series, as most patients lacked a complete autoimmune panel. This situation reflects the constraints on access to specialized immunological investigations in resource-limited settings, where reagent costs and unavailability of technical platforms constitute major barriers to precision diagnosis [3] [11]. The prevalence of overlap syndrome in our series (11.53% of typed patients) is consistent with published figures ranging from 4.3% to 9.2% among primary biliary cholangitis patients and 8% to 10% among AIH patients, with reported ranges extending from 1.9% to 19% [14] [15].

4.4. Treatment, Outcome, and Prognostic Factors

All patients received first-line corticosteroid therapy with prednisone, with a favorable biochemical response in 65.38%. This rate, although satisfactory, falls below the 80% remission rate reported in Western series, likely reflecting the high proportion of patients diagnosed at an advanced disease stage in our setting [14] [15]. Treatment interruptions, observed in 34.6% of patients whether voluntary, due to adverse events, or resulting from drug supply disruptions represent a major aggravating factor, promoting disease flares and progression to decompensated cirrhosis [13] [14]. This phenomenon is well documented in sub-Saharan Africa, where economic and logistical constraints limit long-term therapeutic adherence in chronic diseases requiring continuous immunosuppressive treatment [11] [14]. The mortality rate of 19.23% recorded in our series is concerning and exceeds that reported in centers with full diagnostic and therapeutic resources. A study conducted in South Africa in a predominantly black African population with AIH similarly observed high mortality, attributed to delayed diagnosis and unavailability of liver transplantation as a last-resort option [12]. On both univariate and multivariate analyses, the factors associated with death converged with African literature findings identifying hepatocellular insufficiency and portal hypertension as the primary determinants of mortality in chronic liver disease in African settings, emphasizing the deleterious role of diagnostic delay on prognosis [12] [13]. The absence of liver transplantation capacity in Gabon represents a critical structural limitation that inevitably conditions the outcome of the most severe forms of AIH.

5. Study Limitations

This study has some limitations that need to be considered when interpreting the

results. First, the small number of deaths observed limits the statistical power of the multivariate analysis and reduces the strength of the associations identified. Additionally, the retrospective nature of the study and the sometimes incomplete diagnostic assessments in some patients could have led to information bias and an underestimation of certain clinical or immunological features. As a result, the factors associated with death highlighted by the multivariate model should be interpreted with caution and need to be confirmed by prospective studies with larger sample sizes and more comprehensive diagnostic evaluations.

6. Conclusion

This study confirms that autoimmune hepatitis represents a non-negligible cause of chronic liver disease at the Libreville University Hospital, with a hospital prevalence of 10.15%, predominantly affecting young and economically active women. Diagnosis remains delayed in our setting, conditioned by limited access to specialized autoantibodies and liver biopsy, exposing patients to advanced disease at the time of management. The high mortality rate (19.23%) despite universal corticosteroid therapy illustrates the therapeutic challenges inherent to resource-limited countries, compounded by treatment interruptions and the unavailability of liver transplantation. Hepatocellular insufficiency, elevated serum bilirubin, and ascites are the three independent predictors of death, identified by a predictive model with excellent discrimination (AUC = 0.935). Strengthening immunological diagnostic capacity, raising clinician awareness of AIH, and improving long-term therapeutic adherence are essential priorities for improving prognosis of AIH in sub-Saharan Africa.

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Author Contributions

A.A.E. (principal investigator) conceived the study, drafted the protocol, and coordinated data collection. P.D.N., G.L.N., and M.S. participated in patient inclusion and data collection. P.E.I.B., I.F.M.M.T., M.M., and A.N. contributed to statistical analyses and literature review. J.B.M.K. (senior supervisor) oversaw the study and revised the final manuscript. All authors read and approved the final version of the manuscript.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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