

ESIM Winterschool 2014

Clinical Case Presentation



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Initial Presentation

- 50-year old female patient with jaundice and fatigue
- Without any other symptoms (not vomiting, no abdominal pain, no diarrhea, no fever)
- **PMHx:** cholecystectomy
- **Social Hx:** not smoking, no alcohol
- **Medications:** none
- **Physical Examination:**
 - * Jaundice
 - * B.P.: 117/71 mmHg, Temperature: 36.3, Pulse: 89/min, spO₂ : 98%
 - * Cardiac, respiratory, neurological and abdomen examination:
without any pathological findings
- **CXR, ECG, Abdomen U/S** : normal

Laboratory Tests on admission

WBC: 5027/uL

NEUT: 57.1%

LYMPH: 25.2%

HCT: 35.6 %

HGb: 12.1 g/dL

MCV: 82.4 fL

MCH: 28 pg

MCHC: 34 g/dL

PLT: 133000/uL

PT: 11.6 sec

aPTT: 35.5 sec

INR: 1.22

Urea: 15 mg/dL (17-43)

Cr: 0.72 mg/dL (0.67-1.17)

SGOT: 971 U/L (3-38)

SGPT: 574 U/L (3-41)

ALP: 153 U/L (30-120)

γGT: 87 U/L (9-55)

LDH: 474 U/L (208-480)

Amyl: 66 U/L (28-100)

Gluc: 146 mg/dL (74-106)

T K E: 28 mm/hr

CPK: 25 U/L (26-171)

Bil total: 9.99 mg/dL (0.30-1.20)

Bil direct: 6.64 mg/dL

K: 3.65 mmol/L (3.50-5.00)

Na: 131 mmol/L (135-145)

Ca: 8.7 mg/dL (8.8-10.6)

Protein total: 8.2 g/dL (6.6-8.3)

Albumin: 3.0 g/dL (3.5-5.2)

Differential Diagnosis



Any
Ideas??

- Viral Hepatitis
- Alcoholic Liver Disease
- Drug- and Toxin- Induced Liver Disease
- Autoimmune Hepatitis
- Primary Biliary Cirrhosis
- Hemochromatosis
- Wilson's Disease
- Primary Sclerosing Cholangitis
- Alpha1- Antitrypsin Deficiency

Workup



Anti-HCV: (-)
HBsAg: (-)
Anti-HBs: (-)
HBeAg: (-)
Anti-Hbe: (-)
Anti-HBc-T: (-)
HIV Ag-Ab: (-)
CMV-IgG: (+)
CMV-IgM: (-)
EBV IgG: (-)
EBV IgM: (-)
HSV 1/2 IgG: (-)
HSV 1/2 IgM: (-)

AFP: (-)
CA 15.3: (-)
CA 125 : (-)
CEA: (-)
CA 19.9 : (-)

IgG: 2490 mg/dL (700-1600)
IgA: 564 mg/dL (70-400)
IgM: 165 mg/dL (40-230)

Serum Protein Electrophoresis:

albumin:	42.6%	(52.0 – 65.1)
alpha-1 globulins:	1.30%	(1.00 – 3.00)
alpha-2 globulins :	5.4%	(9.5 – 14.4)
beta globulins:	9.9%	(8.5 – 14.5)
gamma globulins:	40.8%	(0.7 – 20.3)

Abdomen CT: Without any pathological findings. Cholecystectomy.

MRCP: Mild heterogeneity of the liver.
No other pathological findings.



What's next ??

- Antinuclear Antibodies (ANA): (+) 1:80
- Anti-DNA antibodies: (-)
- Antimitochondrial antibodies (AMA): (-)
- Anti-smooth muscle antibodies (ASMA): (-)
- Anti-Soluble Liver Antigen/Liver Pancreas antibodies (Anti-SLA/LP): (-)
- c-ANCA: (-)
- p-ANCA: (-)
- Anti-Liver-Kidney Microsomal-1 antibodies (ALKM-1): (-)
- Anti-Liver Cytosol antibody-1 (ALC-1 or LC1): (-)

Liver Biopsy: Portal mononuclear cell infiltrate that invades the limiting plate surrounding the portal triad and permeates the surrounding lobule (ie, periportal infiltrate) and beyond. Bridging necrosis and fibrosis. These histopathologic findings are suggesting autoimmune hepatitis.

Simplified Criteria for the Diagnosis of Autoimmune Hepatitis

Elke M. Hennes,¹ Mikio Zeniya,² Albert J. Czaja,³ Albert Parés,⁴ George N. Dalekos,⁵ Edward L. Krawitt,⁶ Paulo L. Bittencourt,⁷ Gilda Porta,⁸ Kirsten M. Boberg,⁹ Harald Hofer,¹⁰ Francesco B. Bianchi,¹¹ Minoru Shibata,¹² Christoph Schramm,¹ Barbara Eisenmann de Torres,¹³ Peter R. Galle,¹³ Ian McFarlane,¹⁴ Hans-Peter Dienes,¹⁵ Ansgar W. Lohse,¹ and the International Autoimmune Hepatitis Group

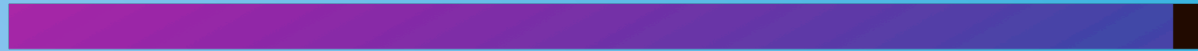
Hepatology 2008

	Variable	Cutoff	Points
1. Αυτοαντισώματα	ANA or SMA	$\geq 1:40$	1
	ANA or SMA	$\geq 1:80$	2*
	or LKM	$\geq 1:40$	
	or SLA	Positive	
2. IgG	IgG	>Upper normal limit	1
		>1.10 times upper normal limit	2
3. Ιστολογία	Liver histology (evidence of hepatitis is a necessary condition)	Compatible with AIH	1
		Typical AIH	2
4. Ιογενείς ηπατίτιδες	Absence of viral hepatitis	Yes	2

≥ 6 : probable AIH
 ≥ 7 : definite AIH

*Addition of points achieved for all autoantibodies (maximum, 2 points).

Diagnosis



Diagnosis and Management of Autoimmune Hepatitis

Michael P. Manns,¹ Albert J. Czaja,² James D. Gorham,³ Edward L. Krawitt,⁴ Giorgina Mieli-Vergani,⁵
Diego Vergani,⁶ and John M. Vierling⁷

Immunosuppressive Treatment Regimens for Adults in Autoimmune Hepatitis

	Combination Therapy			
	Monotherapy	Azathioprine		
	Prednisone only* (mg/day)	Prednisone* (mg/day)	USA (mg/day)	EU (mg/kg/day)
Week 1	60	30	50	1-2
Week 2	40	20	50	1-2
Week 3	30	15	50	1-2
Week 4	30	15	50	1-2
Maintenance until endpoint	20 and below	10	50	1-2
Reasons for Preference	Cytopenia Thiopurine methyltransferase deficiency Pregnancy Malignancy Short course (≤ 6 months)		Postmenopausal state Osteoporosis Brittle diabetes Obesity Acne Emotional lability Hypertension	

*Prednisolone can be used in place of prednisone in equivalent doses.

Treatment

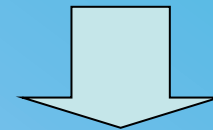


**Prednizone 30 mg daily
+
AZA 50 mg daily**

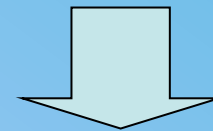
DATE	12/5	18/5	22/5	23/5	31/5	7/6	14/6	17/6
T.BIL	9,99	21,66	25,38	25,67	29,11	31,33	35,39	37,60
D.BIL	6,64	14,54	14,47	14,68	17,24	17,24	18,15	19,88
ALP	153	183	165	153	152	137	152	170
γGT	87	50	44	40	38	39	49	56
ALT	574	445	300	307	162	142	164	188
AST	971	957	765	848	196	138	119	117
LDH	474	403	495	514	315	384	558	672
INR	1,22	1,56	1,53	1,46	1,57	1,60	1,86	1,84



**Prednizone 60 mg daily
+
AZA 150 mg daily**



No response



Acute Liver Failure

King's College criteria for Non-acetaminophen associated Acute Liver Failure:

INR >6.5 (PT >100 seconds)

or

any 3 of the following:

- age <10 and >40 years
- etiology non-A, non-B hepatitis, or idiosyncratic drug reaction
- duration of jaundice before hepatic encephalopathy >7 days
- INR >3.5 (PT >50 seconds)
- serum bilirubin >17.6 mg/dL (>300 micromol/L).

Due to her severe condition, the patient was transferred abroad for urgent liver transplantation.





Thank you!