



Isfahan University of Medical Sciences
Department of Gastroenterology



Iranian Association Of Gastroenterology And Hepatology
Isfahan Branch

Feedback

Advisory Commission and Grand Round December 25 2023



Digestive Health Center
Azzahra Hospital, Isfahan

A 30-year-old man

The patient has noticed an increase in liver enzymes since 1401 after seeking medical tests, and was treated with a possible diagnosis of fatty liver and advised to follow a diet, but due to the continued increase in liver enzymes and lack of improvement, additional tests and MRCP and liver biopsy were recommended and due to the incompatibility of the results of biopsy and MRCP, he have been introduced to this commission for final diagnosis and treatment.

PMH: There is no history of any specific disease in the patient

FH: history of hepatitis B in the patient's father and aunt, but the patient was vaccinated at time of his birth.

A history of breast cancer in the mother at the age of 63, who was treated with surgery and chemotherapy and is currently under control.

DH: Liverpool daily

Ursodeoxycholic acid every 8 hours



computer engineer

He did not consume alcohol or herbal medicines

Lab Data

1401.09.24

WBC 7.1	ESR 4	AST 49
NEU 32% LYM 54%	Na 143	ALT 82
RBC 5.9	K 4.2	ALK 302
HB 17.7	TSH 2	Fe 124
HCT 52	T3 119	Ferritin 116
MCV 87	T4 9.2	
MCH 29		
PLT 219		

Sonography

1401.10.13

The shape, dimensions and parenchymal echo of the spleen are normal. spleen span = 107mm)

The shape and dimensions of the liver is normal and its parenchymal echo have increased, fatty liver grade 1 model

No space-occupying mass was observed in the liver and spleen

Intrahepatic and extrahepatic bile duct ectasia was not seen

The diameter of the portal vein and the diameter of the CBD are normal

The gallbladder has a normal volume and wall thickness. Stones and sludge were not observed in the gallbladder.

Pancreas, aorta and para-aorta are normal as far as can be examined.

Both kidneys have normal shape, dimensions, thickness and parenchymal echo

Stones and hydronephrosis were not seen in the kidneys

No free fluid was seen in the abdomen.

در سونوگرافی به عمل آمده از شکم:

- شکل و ابعاد و اکوی پارانشیمال طحال نرمال است. (spleen span= 107 mm)
- شکل و ابعاد کبد نرمال و اکوی پارانشیمال آن افزایش یافته است (معادل fatty liver grade I)
- توده فضاگیر در کبد و طحال مشاهده نشد.
- اکتازی مجاری صفراوی داخل و خارج کبدی رویت نشد. قطر ورید پورت و قطر CBD نرمال است.
- کیسه صفرا دارای حجم و ضخامت جداری طبیعی است. سنگ و اسلاژ در کیسه صفرا مشاهده نشد.
- پانکراس و آئورت و پارا آئورت در حد قابل بررسی نرمال هستند.
- هر دو کلیه دارای شکل و ابعاد و ضخامت و اکوی پارانشیمال طبیعی هستند.
- سنگ و هیدرونفروز در کلیه ها رویت نشد.
- در شکم مایع آزاد رویت نشد.

Lab Data

1402.03.25

FBS 75	CHOL 101	AST 68
HBA1C 5.3	TG 65	ALT 115
BUN 25	HDL 33	ALK 564
CR 1.3	LDL 55	
	LDL/HDL 1.7	
	CHOL/HDL 3.1	

Sonography

1402.04.14

The size and volume of the liver is normal

Echogenicity of liver parenchyma is normal

No space-occupying mass was not seen in the liver parenchyma.

Gallbladder with normal volume and wall was observed

No gallstones were seen

Bile ducts have a normal diameter.

The diameter of the port and hepatic veins is normal.

همکار کرامی جناب آقای دکتر محسن زمانی

سونوگرافی کبد و کیسه صفرا:

- اندازه و حجم کبد نرمال می باشد .
- echogenicity پارانشیم کبد طبیعی است .
- توده فضاگیر در پارانشیم کبد دیده نشد .
- کیسه صفرا با حجم و جدار نرمال مشاهده شد .
- سنگ کیسه صفرا رویت نشد .
- مجاری صفراوی قطر طبیعی دارد .
- قطر پورت و وریدهای کبدی طبیعی است .

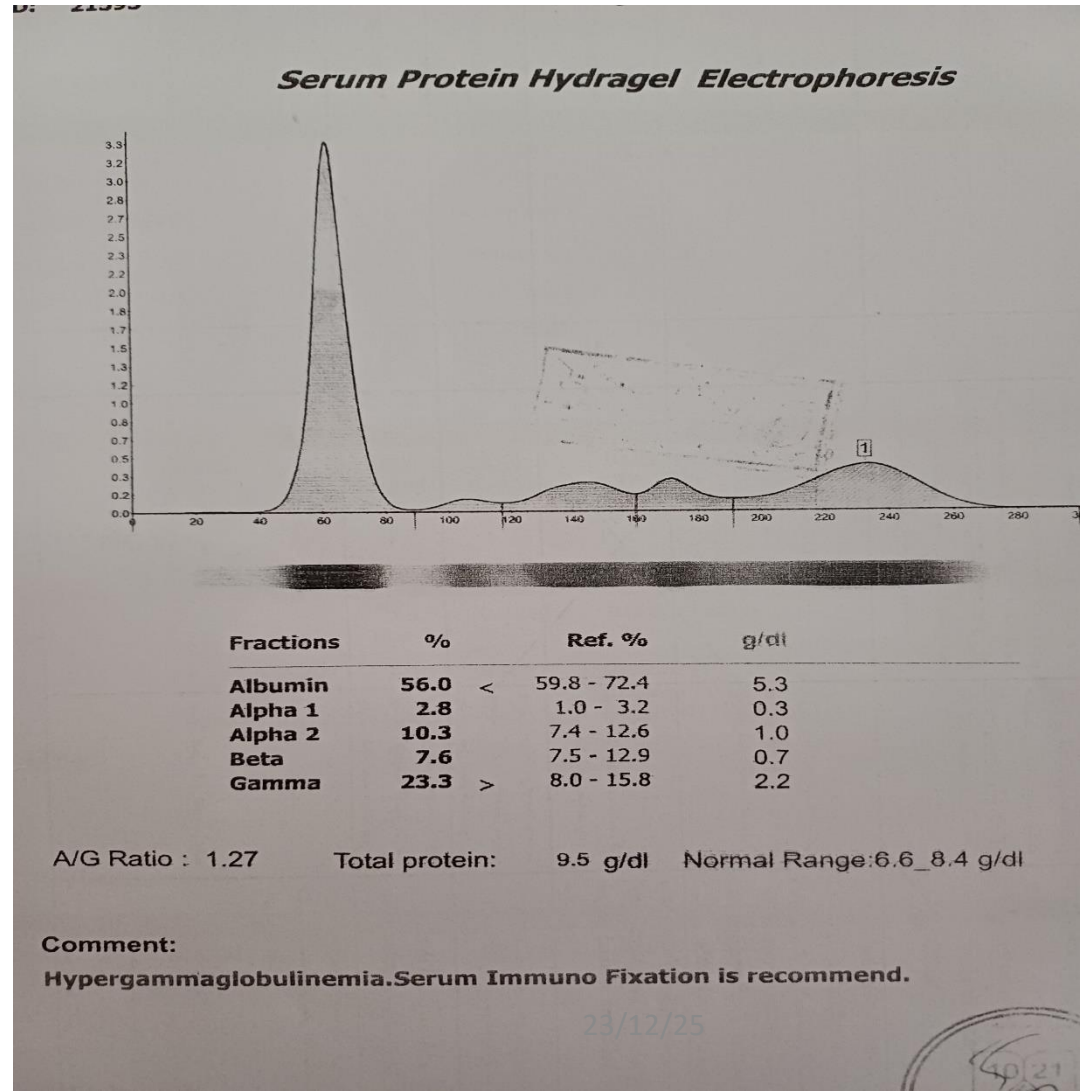
Lab Data

1402.05.04

AST 66	ANA 1/100	Urine : (24h)
ALT 110	AMA 1.6	Volume 1500
Billi.T 0.7	HBS-Ag Neg	Pro 75
Billi.D 0.3	HBS-Ab Neg	Copper 50
Cer 36	HCV Neg	Creat 1590

Serum Protein Electrophoresis

1402.05.09



Pathology

1402.07.12

Macroscopic

Received specimen consist some tubular soft tan pieces total length 3, 2, 1.5, 1, cm and 0.1 cm in diameter.

Microscopic

A. Periportal or periseptal interface hepatitis (piecemeal necrosis) Mild (focal, few portal areas) 1

B. Confluent necrosis : Focal confluent necrosis 1

C. Focal (spotty) lytic necrosis, apoptosis and focal inflammation : Two to four foci per 10 objective 2

D. Portal inflammation : Moderate, some or all portal areas 2

Fibrous expansion of most portal areas with occasional portal to portal (P-P) bridging 3

Plasma cell: Few (0-2 in most portal/lobular areas),

-Bile duct injury; Present

-Bile duct loss; Present

-Ductular reaction: Present

Diagnosis

Chronic Cholestatic pattern, See note.

Comment

PSC Stage 3/4 should be considered in differential diagnosis of this feature. Clinical, imaging and serologic correlation is recommended.

واحد آزمایشگاه پاتولوژی

تاریخ پذیرش:

۱۴۰۲/۰۷/۱۲ - ۰۸:۳۶ Tissue

شماره برگه:	۷ - ۱۵۵۱۷	نام:	احمد رضا - شیبانی راد	تاریخ نسخه:	۱۴۰۲/۰۷/۱۲
کد پذیرش:	۳۰۹۵۲۹	شماره پاتولوژی:	s022-7222	تاریخ جواب:	۱۴۰۲/۰۷/۲۲
جنس:	مرد	سن:	۳۹	پزشک:	بیمارستان الزهراء - اصفهان
		پزشک ارجاع:	--		

Macroscopic:

Received specimen consist some tubular soft tan pieces total length 3, 2, 1.5, 1, cm and 0.1 cm in diameter.

Microscopic:

A. Periportal or periseptal interface hepatitis (piecemeal necrosis)

Mild (focal, few portal areas) 1

B. Confluent necrosis

Focal confluent necrosis 1

C. Focal (spotty) lytic necrosis, apoptosis and focal inflammation

Two to four foci per 10 objective 2

D. Portal inflammation

Moderate, some or all portal areas 2

Fibrous expansion of most portal areas with occasional portal to portal (P-P) bridging 3

Plasma cell : Few (0-2 in most portal/lobular areas),

Rosettes ; Absent

Emperipolesis ; Absent

-Bile duct injury; Present

-Bile duct loss; Present

-Ductular reaction: Present

-Cholestasis: Absent

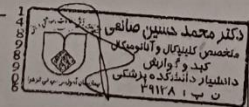
Diagnosis :

Chronic Cholestatic pattern, See note.

Comment :

PSC Stage 3/4 should be considered in differential diagnosis of this feature.

Clinical, imaging and serologic correlation is recommended.



نام ریذنت: دکتر نصری پرتو

23/12/23

MRCP

1402.08.01

Intrahepatic and extrahepatic bile ducts are normal.

Diameter and contour of gall bladder and cystic duct evaluated that are normal.

There is no evidence of bile ducts ectasis.

Liver spleen and adrenal glands are normal.

Pancreas is normal.

Pancreatic duct has normal diameter.

No para-aortic lymphadenopathy is seen. No ascites is noted.

IMP: Normal MRCP study

نام خدمت MR کلانژیوگرافی (MRCP)

MRCP

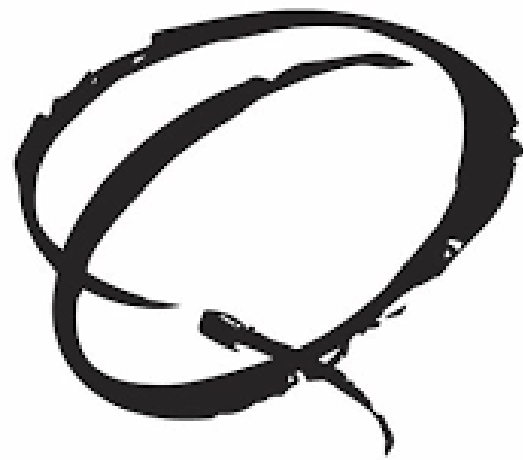
Intrahepatic and extrahepatic bile ducts are normal.
Diameter and contour of gall bladder and cystic duct evaluated that are normal.
There is no evidence of bile ducts ectasis.
Liver , spleen and adrenal glands are normal.
Pancreas is normal.
Pancreatic duct has normal diameter.
No para-aortic lymphadenopathy is seen.
No ascites is noted.
IMP : Normal MRCP study

Dr. mosavi

Lab Data

1402.08.24

AST 34	Amylase 109	S/E NL
ALT 41	Lipase 24	S/C Neg
ALP 323	Fe 103	
Billi.T 1.4	Ferritin 94	
Billi.D 0.2	CRP 2	



FEEDBACK

Dear Professor:

Thank you for introducing the patient. The patient was presented at the joint meeting of the commission and the grand round. The patient's documents were seen. After discussion and debates with our gastroenterologist colleagues and review of references and literatures, the following advisory decisions were made, which are announced to you for your information, help and, if you consider it appropriate, to apply:

According to the liver biopsy, small duct PSC may be present, although fatty liver may also be present at the same time. The mentioned findings in liver pathology are more consistent with autoimmune hepatitis, which does not require treatment with immunomodulators.

Previous liver biopsy slides should be re-reviewed for the possibility of small duct PSC or overlap, and relevant surveillances, colonoscopy and biopsy are recommended if the samples are match to small duct PSC.

CPK and Addison evaluations are recommended.

Check GGT, Ig G4 and transferrin saturation.

It is recommended to follow the patient and if ALT increases in the future, a corticosteroid trial may also help.



A 42-year-old man

The patient has been suffering from abdominal pain in the form of biliary colic for about 2 years. He underwent laparoscopic cholecystectomy surgery due to gallbladder polyps.

The patient has undergone additional examination since 8 months ago due to similar pains, and an increase in transaminase, thrombocytopenia, and splenomegaly were found.

The patient's pains were in the epigastrium and right upper quadrant of the abdomen. It was not related to eating and defecation. It was not positional and did not radiate.

The patient lost 10 kg in two months under the supervision of a nutritionist.

PMH:

Nerve and mental problems since about 15 years ago

Drug history:

Lansaprazole 30 mg/twice a day

Penicillamine 250 mg / 3 times a day

Pioglitazone 30 mg/day

Vitamin B6 / once a day

Indral 10 mg / once a day

Lamotrigine 250 mg / once a day

Vitamin D 1000 units / once a day

Vitamin E / daily

Omega 3 / daily

Fibroscan

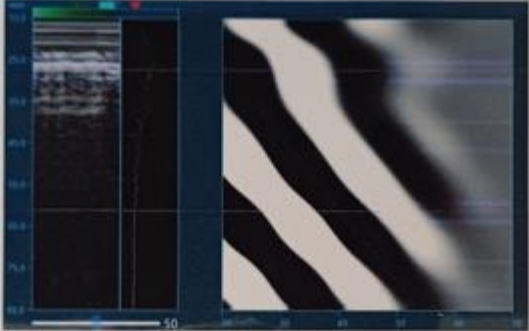
1400/08/11

SEVERE steatosis (S3)
MODERATE fibrosis (F3-F4).

Height 168 cm Weight 92 kg Gender M BMI 32.6

date:1400/08/11

Physician DR:sohilipour ID 0458



Stiffness(kPa)	Measurements	UAP(dB/m)
Median 14.4	Success Rate 100.0	Median 315
IQR/Median 6%	Valid/Total 10/10	IQR/Median 1%

Liver Stiffness Measurement: F0-F1 (7.3), F2 (9.7), F2-F3 (12.4), F3-F4 (17.5), F4

Ultrasound Attenuation Parameter: Normal (240), Mild (265), Moderate (295), Severe

For reference only. Please consult your physician for further diagnosis.

Comment
According to above findings:
The patient has SEVERE steatosis (S3) and MODERATE fibrosis (F3-F4).

Liver biopsy and Cholecystectomy

1400.08.18

Preoperative diagnosis of gallbladder polyps

Postoperative diagnosis: the same and nodular liver

تشخیص قبل از عمل: پولیپ کیسه صفرا

تشخیص بعد از عمل: همان به همراه کبد ندولار

نوع عمل: کوله سیستکتومی و بیوپسی کبد لاپاروسکوپیک

دکتر امیر حسین داوودپناه
بورده تخصصی جراحی عمومی
فلوشیپ لاپاراسکوپی پیشرفته و جراحی چاقی
نظام پزشکی

پس از پرپ و درپ تحت GA در وضعیت سوپاین ابتدا با استفاده از تروکار ۱۱ میلیمتری از برش بالای ناف با تکنیک OPEN وارد شدیم. فشار داخل شکم به ۱۵ میلیمتر جیوه رسانده شد و دوربین داخل برده شد. آسیب ایاتروژنیک وارد نشده بود. چسبندگی های ناشی از جراحی قبلی رویت شد ولی تداخلی با کله سیستکتومی نداشت. زیر دید مستقیم یک پورت 11mm در اپیگاستر و دو پورت 5mm در RUQ تعبیه گردید. کبد ظاهر ماکرونولار داشت. کیسه صفرا فاقد التهاب بود. از طریق پورت فلانک راست گراسپر وارد شد و فوندوس کیسه صفرا بالا و راست نگه داشته شد. با ایجاد critical view شریان و مجرای سیستیک اکسپلور و با چهار همولاک بنفش دبل لیگاتور و سپس با قیچی قطع شد. سپس کیسه صفرا بدون اینکه سوراخ شود با کوتر از کبد جدا شد و از طریق پورت ناف به صورت اینتکت با Retrieval bag خارج گردید. یک بیوپسی ۱ سانتی از لب راست کبد برداشته شد. محل بیوپسی با کوتر هموستاز شد. به مدت ۵ دقیقه فشار داخل شکم صفر شد مجددا لاپاروسکوپی انجام شد. از هموستاز اطمینان حاصل گردید. پورت ها زیر دید مستقیم خارج گردید فاشیای پورت نافی و اپیگاستر با ویکریل و پوست با نایلون ترمیم و به عمل خاتمه داده شد

دکتر امیر حسین داوودپناه جزی
فلوشیپ جراحی عمومی - فلوشیپ لاپاراسکوپی
۱۲۸۲۳۲۲

Pathology of Liver biopsy and Cholecystectomy

1400.08.18

Mild to Moderate steatohepatitis

Chronic cholecystitis with cholelithiasis

Cholesterol Polyp are seen

Macroscopic :

Liver : One soft tissue sized 0.8 x 0.5 x 0.5 Pink colour.

Gallbladder :

Received specimen consist gallbladder with grey green colour measuring is 6.5 x 3.5 x 0.2 cm.

Microscopic :

In evaluation of cholecystectomy : Section show gallbladder with edema congested vessels and some area of necrosis. Infiltration of chronic inflammatory .

Liver : steatosis : 2 (20 – 25 %)

Balloning : 0-

-Inflammation : 1

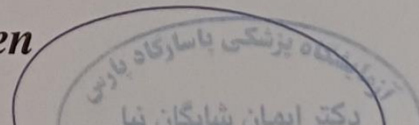
-Fibrosis : 0

DX= Liver biopsy and Cholecystectomy :

-Mild to Moderate steatohepatitis

- Chronic cholecystitis with cholelithiasis

-Cholestrol Polyp are seen



Lab Data

1400.11.18

AST 65	WBC 4900
ALT 127	NEU:44% LYM:44%
ALK 240	HB 15.9
	MCV 87
	PLT 141

Lab Data

1401.01.21

WBC 7600	FBS 102	AST 64	PT 16.5	HBS-Ag neg	Urine volume 24h 2400
NEU:45% LYM:44%	CHOL 190	ALT 98	INR 1.29	Anti-HCV neg	Urine creatinin24h 1.29
HB 17.6	TG 150	ALP 194	CERULOPLASMIN 21	IgA SERUM 1.13	Urine copper 24h 51
MCV 84	HDL 52	Billi.T 1.22	LKM 0.35	Anti Endomysial <1:10	
PLT 196	LDL 111	Billi.D 0.4		Anti smooth muscle Ab <1:100	
MPV 10.5		Alb 4.3		Anti Nuclear Ab 0.96	
		IRON 161			
		TIBC 361			
		Ferritin 262			

Lab Data

1402.03.31

WBC 4800	FBS 101	AST 62	PSA 0.25	HBS-Ag neg	U/A: NL
NEU:45% LYM:44%	CHOL 174	ALT 98	FREE PSA 0.09	Anti-HCV neg	
HB 15.8	TG 93	ALP 195	T4 10.8	HIV Test neg	
MCV 86	HDL 47	Bill. T 0.9	T3 181	TTG IgG 0.5	
PLT 100	LDL 108		TSH 1.77	TTG IgA <0.2	
MPV 9.1		Alb 4.9	Cortisol 14	Anti Nuclear Ab <0.5	
ESR 5		IRON 132	Aldosterone 84		
CRP 0.1		TIBC 301	Renin 1.47		
		Ferritin 292	PTH 26		

Sonography of thyroid gland

1402.03.31

Thyroid lobes have normal shape, contour and size.

Right lobe diameters are 45×13×12 mm and its volume is 4.1 ml. Left lobe diameters are 41×14×12 mm and its volume is 3.9 ml. Thyroid isthmus = 2.1 mm (Lower limit of normal).

Parenchymal echopattern seems normal.

There is no evidence of cystic or solid mass lesion in both lobes.

There are multiple normal appearing and normal size cervical lymph nodes at both sides.

Sonography of thyroid gland :

Thyroid lobes have normal shape, contour and size.

Right lobe diameters are $45 \times 13 \times 12$ mm and its volume is 4.1 ml.

Left lobe diameters are $41 \times 14 \times 12$ mm and its volume is 3.9 ml.

*Thyroid isthmus = 2.1 mm (**Lower limit of normal**).*

Parenchymal echopattern seems normal.

There is no evidence of cystic or solid mass lesion in both lobes.

*-**There are multiple normal appearing and normal size cervical lymph nodes at both sides.***

IMP : -Normal thyroid sonography

Abdominopelvic Sonography

1402.03.31

The liver has normal span and contour with mild to moderate increase parenchymal echogenicity suggestive for fatty liver (Grade I-II).

There is no evidence of liver cystic or solid mass lesion. -Gallbladder is not present (Cholecystectomy).

Biliary ducts and portal system seem normal.

Both kidneys have normal size, contour and position with normal cortical thickness. Their cortical echogenicity and corticomedullary differentiation are within normal limit.

There is a simple cortical cyst with diameter of 8.5 mm at posterior cortex of lower pole of right kidney .

Pancreas has normal size and echotexture.

Spleen span is about 140 mm (More than normal). Correlation with CBC is recommended.

Urinary bladder has normal wall thickness without mass or stone. Prostate diameter are 36×35×33 mm and its volume is about 22 ml. Its parenchymal echopattern seems normal.

IMP :-Fatty liver (Grade I-II) / Cholecystectomy/Mild splenomegaly

In abdominopelvic sonography :

-The liver has normal span and contour with mild to moderate increase parenchymal echogenicity suggestive for fatty liver (Grade I-II).

There is no evidence of liver cystic or solid mass lesion.

-Gallbladder is not present (Cholecystectomy).

Biliary ducts and portal system seem normal.

Both kidneys have normal size, contour and position with normal cortical thickness. RTK= 117 mm , LTK= 105 mm

Parenchymal thickness : RT= 14 mm , LT = 13 mm

Their cortical echogenicity and corticomedullary differentiation are within normal limit.

Hydronephrosis or solid tumoral mass is not present.

-There is a simple cortical cyst with diameter of 8.5 mm at posterior cortex of lower pole of right kidney.

There is no evidence of nephrolithiasis or nephrocalcinosis.

Pancreas has normal size and echotexture.

*Spleen span is about 140 mm (**More than normal**). **Correlation with CBC is recommended.***

Abdominal aorta and paraaortic area are unremarkable.

Urinary bladder has normal wall thickness without mass or stone.

Prostate diameter are 36×35×33 mm and its volume is about 22 ml.

Its parenchymal echopattern seems normal.

Mass or free fluid is not seen in abdominopelvic cavity.

*IMP :- **Fatty liver (Grade I-II)***

-Cholecystectomy

-Mild splenomegaly

Abdominopelvic sonography

1402.05.03

The liver has a normal shape and size and does not have a space-occupying mass

The portal vein has a normal diameter

Gallbladder was not seen (Cholecystectomy)

Dilation of intrahepatic and extrahepatic bile ducts was not seen

The kidneys have a normal shape and are free of stones and hydronephrosis. The length of the right kidney is 117mm and the thickness of the parenchyma is 13mm. A simple cyst with a diameter of 6mm can be seen in the lower bridge of the right kidney. The length of the left kidney is 113mm and the thickness of the parenchyma is 14mm.

Pancreas has a normal shape, echo and dimensions and does not have a space-occupying mass

Spleen span is 134mm slightly larger than normal and the spleen echo is normal

The para-aortic area is normal, no ascites or free fluid was seen in the abdomen.

Bladder contains urine and wall thickness is normal. No lumps or stones were seen.

Lab Data

1402.05.03

WBC 5400	FBS 101	AST 61
NEU:44% LYM:46%	Na 143	ALT 85
HB 15.6	K 4.1	Billi.T 1.48
MCV 86	Ca 8.8	Billi.D 0.49
PLT 118	Mg 1.98	Ceruloplasmin 15.6

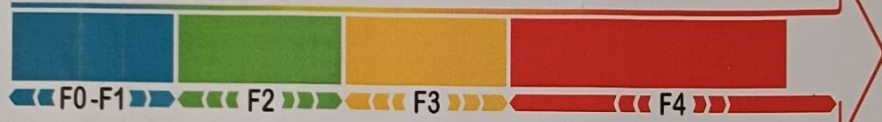
Lab Data

1402.07.03

WBC 5000	FBS 115	AST 47	PT 13	HBS-Ag neg	Urine volume 24h 2200
NEU:45% LYM:48%	CHOL 210	ALT 67	INR 1.1	Anti-HCV neg	Urine creatinin24h 1380
HB 15	TG 111	ALP 179	CERULOPLASMIN 31	IgA SERUM 118	Urine cupper 24h 165
MCV 84	HDL 65	Billi.T 1.62	LKM 11.8	Anti Endomysial 1.5	
PLT 131	LDL 122	Billi.D 0.4		Anti smooth muscle Ab <1:20	
MPV 10.1		Alb 4.7		Anti Nuclear Ab 3.2	
		IRON 89			
		TIBC 291			
		Ferritin 205			

Liver Fibrosis Assisment

Samir A; Radiology 2015 - Mixed etiologies

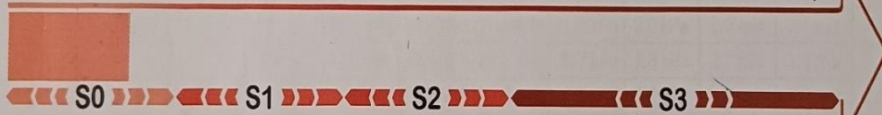


Metavir Score

F4

31.1

Hepato Renal Index



Steatosis Stage

Normal

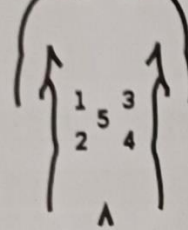
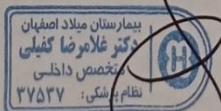
1.09

Comment

Dear Dr. Shavakhi

The liver viscosity was 4.3 Pa.s which means severe inflammation in liver parenchyma.

Your sincerely Dr. Kafili



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3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Right flank	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Left flank	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

ShearWave Elastography

	Depth	Diam	SI	Elasticity					Velocity				
				Min	Max	Mean	Med	SD	Min	Max	Mean	Med	SD
Q-Box 1	5.0 cm	15.0 mm	97 %	29.6 kPa	45.2 kPa	35.2 kPa	34.7 kPa	3.7 kPa	3.1 m/s	3.9 m/s	3.4 m/s	3.4 m/s	0.2 m/s
Q-Box 2	4.9 cm	15.0 mm	97 %	25.0 kPa	34.1 kPa	30.6 kPa	31.0 kPa	2.0 kPa	2.9 m/s	3.4 m/s	3.2 m/s	3.2 m/s	0.1 m/s
Q-Box 3	5.0 cm	15.0 mm	98 %	22.0 kPa	32.5 kPa	28.2 kPa	28.7 kPa	1.8 kPa	2.7 m/s	3.3 m/s	3.1 m/s	3.1 m/s	0.1 m/s
Q-Box 4	5.3 cm	15.0 mm	96 %	4.7 kPa	39.4 kPa	33.8 kPa	34.0 kPa	3.2 kPa	1.3 m/s	3.6 m/s	3.3 m/s	3.4 m/s	0.2 m/s
Q-Box 5	5.1 cm	15.0 mm	91 %	4.7 kPa	34.3 kPa	27.6 kPa	27.4 kPa	3.5 kPa	1.2 m/s	3.4 m/s	3.0 m/s	3.0 m/s	0.2 m/s
Mean	5.1 cm	15.0 mm		17.2 kPa	37.1 kPa	31.1 kPa	31.1 kPa	2.9 kPa	2.2 m/s	3.5 m/s	3.2 m/s	3.2 m/s	0.2 m/s

Mean	31.1 kPa	3.2 m/s
Median	30.6 kPa	3.2 m/s
IQR	5.5 kPa	0.3 m/s
SD	3.0 kPa	0.2 m/s

Reference

Samir A, Radiology. 2015, Mixed etiologies

Fibrosis METAVIR stage	Stiffness range	AUROC (95%CI)	Cut-off value criterion	Cut-off value (kPa)
F0-F1	3.4-12.5			
F2	4.0-12.2	0.77 (0.68-0.86)	N/A	7.3 (Sens: 91.4% Spec: 52.5%)
F3	7.8-12.0	0.82 (0.75-0.91)	N/A	8.9 (Sens: 76.5% Spec: 76.5%)
F4	7.6-13.9	0.82 (0.70-0.95)	N/A	9.6 (Sens: 71.4% Spec: 82.2%)

Samir AE, Dhyan M, Vij A, Bhan AK, Halpern EF, Méndez-Navarro J, Corey KE, Chung RT. Shear-wave elastography for the estimation of liver fibrosis in chronic liver disease: determining accuracy and ideal site for measurement. Radiology. 2015 Mar;274(3):888-96.

The above measurements are not from the exam. They are extracted from the selected publication and are shown for reference only. Liver stiffness measurements have been proposed as a non-invasive indirect marker of liver fibrosis severity in patients presenting with chronic hepatopathies. Liver stiffness values have to be interpreted by a clinician who specializes in hepatology and especially in chronic liver diseases, while taking into account the level of reliability of stiffness measurements, and any other clinical and diagnostic information for a given patient, and especially liver stiffness confounding factors. The determination of these diagnostic cut-off values depends on the diagnostic goal, the type of population studied (disease etiology, global severity of disease, confounding factors...). Readers should be aware of these limitations before generalizing clinical results.

liver and portal venous system sonography

1402.07.08

Liver parenchyma is generally coarse and heterogeneous and there appears to be some reduction in total volume of liver

Mid clavicular span is about 13cm, however left liver lobe is small.

In color Doppler ultrasound study flow in main portal vein is stagnant and is monophasic without any significant respiratory fluctuation and is still hepatopetal.

Flow in hepatic veins is monophasic and hepatofugal, suggestive for some degree of stiffness of liver parenchymal.

Maximum caliber of main portal vein is about 14mm and maximum caliber of splenic vein is about 9mm, both are in upper limit of normal range

There is no cavernous transformation in hepatic or splenic hila.

Spleen has a maximum span of 15cm, suggestive for mild splenomegaly with homogeneous parenchyma.

Overall there is no gross evidence of portal hypertension yet, however disuse liver parenchymal disorder maybe very likely.

Cholecystectomy is noted.

Dear Dr:

In gray scale and color Doppler ultrasound study of liver and portal venous system also rest of abdomen:

Liver parenchyma is generally coarse and heterogeneous and there appears to be some reduction in total volume of liver .

Mid clavicular span is about 13cm , however left liver lobe is small .

In color Doppler ultrasound study flow in main portal vein is stagnant and is monophasic without any significant respiratory fluctuation and is still hepatopetal.

Flow in hepatic veins is monophasic and hepatofugal, suggestive for some degree of stiffness of liver parenchymal.

Maximum caliber of main portal vein is about 14mm and maximum caliber of splenic vein is about 9mm , both are in upper limit of normal range .

There is no cavernous transformation in hepatic or splenic hila.

Spleen has a maximum span of 15cm , suggestive for mild splenomegaly with homogeneous parenchyma.

Overall there is no gross evidence of portal hypertension yet, however disuse liver parenchymal disorder maybe very likely .

Cholecystectomy is noted.

Lab Data

1402.07.12

WBC 5000	AST 75	BUN 7	Cu urine 24h 30.7
NEU:41% LYM:53%	ALT 130	CR 0.8	Urine volume 24h 2700
HB 15.9	ALP 257	Na 137	
MCV 90	Billi.T 1.4	K 4.4	
PLT 121	Billi.D 0.6		
	Alb 4.5		
	PT 14.5		
	INR 1.3		

GI Endoscopy

1402.07.15

Esophagus: Normal, No varix was detected

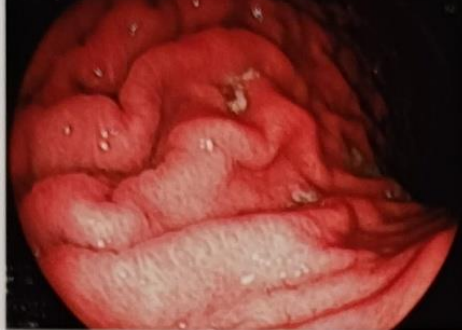
Stomach : Muocsa had snake skin appearance in body, few erosions were seen in antrum

Duodenum : Few erosions were seen in bulb

Diagnosis: Erosive gastroduodenopathy, R/O portal hypertensive gastropathy



Lower esophagus



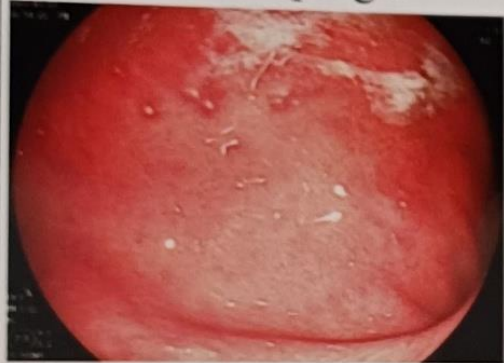
Body



Antrum



Antrum



Bulb



Duodenum, 2nd

Findings :

Esophagus : Normal ,No varix was detected

Stomach : Muocsa had snake skin appearance in body , few erosions were seen in antrum , biopsy was taken ,

Duodenum : Few erosions were seen in bulb , *D₂ was normal, biopsy was taken*

Diagnosis : Erosive gastroduodenopathy , R/O portal hypertensive gastropathy

BIOPSY OF STOMACH & DUODENUM

1402.07.15

BIOPSY OF STOMACH: - EROSIVE GASTROPATHY.

- NEGATIVE FOR H.PYLORI (HP-).

BIOPSY OF DUODENUM (D2): - WITHIN NORMAL LIMITS.

MACROSCOPIC DESCRIPTION:

Specimens received in 2 containers:

- 1- **Stomach Biopsy:** Consists of 2 pieces, the greater measures 0.2cm, with whitish color.
- 2- **Biopsy of Duodenum (D2):** Consists of 2 pieces, the greater measures 0.4cm, with whitish color.

MICROSCOPIC DESCRIPTION:

- 1- **Stomach Biopsy:** Sections show mild edema and vascular congestion in lamina propria. The epithelium is intact, and scattered neutrophils, and hemorrhage are evident in mucosa. H.Pylori is not seen on the surface mucousa in Giemsa stain. There is no evidence of malignancy.
- 2- **Biopsy of Duodenum (D2):** Sections show duodenal mucosa. The villi have normal shape and height and villous to crypt ratio is within normal limits. There is no increase in intraepithelial lymphocytes, and no crypt hyperplasia (Evidences of Celiac disease are not seen).

Dx: 1- BIOPSY OF STOMACH: - EROSIVE GASTROPATHY.
- NEGATIVE FOR H.PYLORI (HP -).

2- BIOPSY OF DUODENUM (D2): - WITHIN NORMAL LIMITS.

دکتر کیوان شیرنشان
 بورده تخصصی آناتومی کال و کلینیکی کال پاتولوژی

۹۴
۱۲۴ عهده ن -

دکتر علی رضا وهفانی
متخصص و جراح چشم و فلوشیپ شبکیه
استاد دانشکده پزشکی ن.پ: ۵۱۵۵۱۵۴

Liver core needle Biopsy

1402.07.30

active cirrhosis (most probably due to steatohepatitis) clinical, serologic correlation is recommended.

Dry Hepatic copper concentration: 490

Clinical Data:

SGOT: 75* SGPT: 130* ALK Ph: 257 Bili (T);1.4 GGT:

HCV-Ab: HBS -Ag: HAV-Ab(IgM):

ANA: ASMA: AMA : LKM;

Gamma Globulin: IgG; IgM;

MRCP; Fibroscan; F 4 ;S 0

Macroscopic Description:

Received specimen in formalin consist two containers labeled as:

liver Biopsy: One tubular soft tan pieces total length 0/9 and 0.1cm in diameter.

liver Biopsy; consist three tubular soft tan pieces total length 1/8 cm and 0.1cm in diameter.

Microscopic Description:

Liver Biopsy;Liver parenchyma was replaced totally by nodule. Nodule was surrounded by thick and thin fibrous tissue masson trichrome staining. No inflammation was observed in septa.nodule consist of hepatocyte which in some area had two cell thickness. Also marovesicular steatosis was found.

Diagnosis:

Liver core needle Biopsy :

-Finding is consistent with **active cirrhosis** (most probably due to steatohepatitis) clinical, serologic correlation is recommended.

Dry Hepatic copper concentration: **490** (micro.gr/gr)

Interpretation:

< **50** µg/g dry weight :**Normal**

>250 µg/g dry weight:**Homozygous patients** with Wilsons's disease

>50 but <250µg/g dry weight ; **Elevated but in heterozygotes,Elevated to lesser degrees in chronic cholestatic disorders (e.g., primary biliary cirrhosis,primary sclerosing cholangitis, paucityof duct syndrome, Byler syndrome),hyperalimantation, exposure to sprays containing copper sulphate (vineyard workers),cystic ibrosis, long-term bile duct obstruction**

Lab Data

1402.09.08

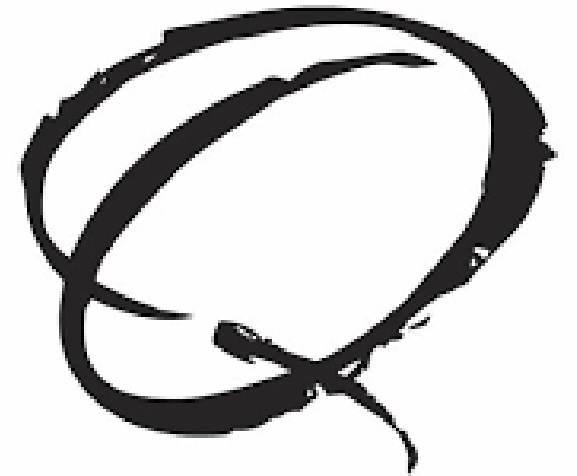
FBS 122	AST 57	WBC 3500	Iron 84
TG 109	ALT 71	NEU:56% LYM:38%	TIBC 299
CHOL 177	ALP 182	HB 14.5	Ferritin 82
HDL 41	Billi.T 1.59	MCV 85	CERULOPLASMIN 31
LDL 115	Billi.D 0.45	PLT 109	Gamma GT 71
	Alb 5.4	MPV 10.8	Ptt 43
			Pt 11
			INR 1.3

Q

According to the results of the tests and investigations, is Wilson's diagnosis relevant?

Is further action necessary?

Do you need to repeat the tests?



FEEDBACK

Dear Professor:

Thank you for introducing the patient. The patient was presented at the joint meeting of the commission and the grand round. The patient's documents were seen. After discussion and debates with our gastroenterologist colleagues and review of references and literatures, the following advisory decisions were made, which are announced to you for your information, help and, if you consider it appropriate, to apply:

Currently, by reviewing the clinical and laboratory evidence, there are findings for the pros and cons of Wilson's diagnosis:

Increased liver copper, sometimes low levels of serum ceruloplasmin, psychiatric disorders, and liver damage favor Wilson's disease.

On the other hand, evidences of fatty liver, the absence of very low levels of ceruloplasmin, the absence of very low levels of alkaline phosphatase, and the absence of KF ring are detrimental to Wilson's disease, therefore, considering the importance of diagnosis and its impact on the life of the person and even his sibling, it is recommended Wilson's genetic set should be done.

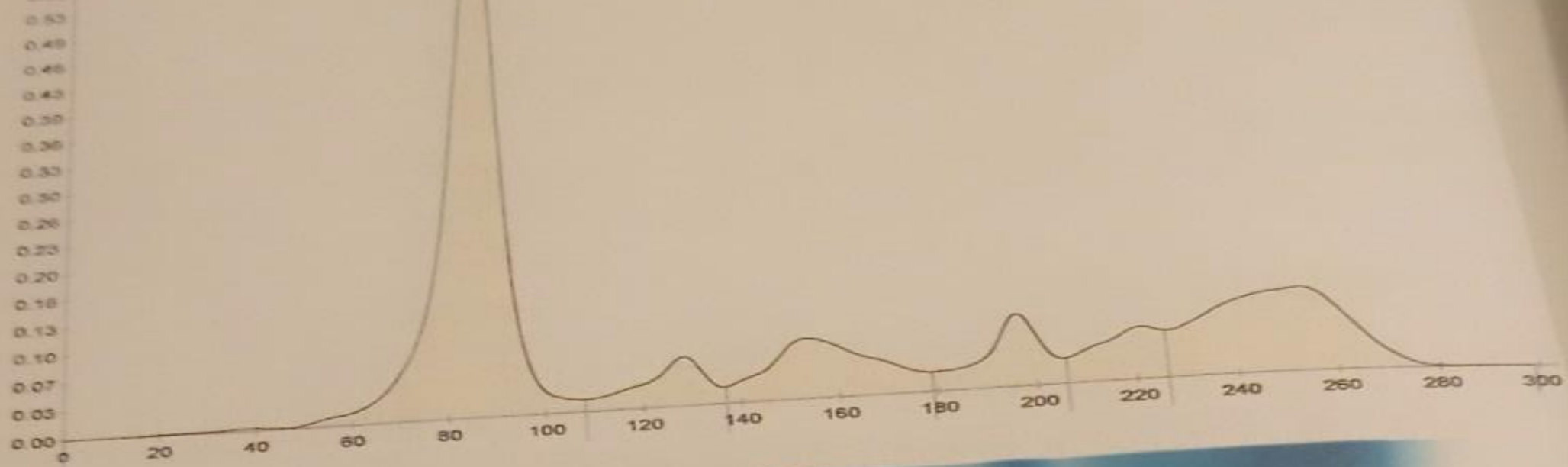
MRI of the brain of copper deposits in the basal ganglia may help.

In any case, diet and weight loss are recommended.

A 32-year-old woman

- She has been suffering from dizziness since 4 months ago, and she is doing tests and ultrasound.
- There is no abdominal pain or other GI symptoms.
- She have UTI (UC: E. Coli) in the tests, takes antibiotics and gets better.

14.2/6/12		1402/7/25				
AST	45	102	BILLIT	0/6	AFP	2/3
ALT	67	101	BILLID	0/3	IGGHYDATID	0/18
ALKP	425	884	GGT	287	ANA	-
WBC	5/5		INR	1	HBs Ag	-
RBC	4/1		PT	13	HCVAB	-
HB	12				ANTI TTG(IGA)	-
MCV	93				CER	-
MCH	28					
PLT	225					
CRP	-					
FERRETIN	24					



Fractions	%		Ref. %	Ref. g/dl
Albumin	51.5	L	55.8 - 66.1	4.0 - 4.8
Alpha 1	5.3	H	2.9 - 4.9	0.2 - 0.4
Alpha 2	10.8		7.1 - 11.8	0.5 - 0.9
Beta 1	7.0		4.7 - 7.2	0.3 - 0.5
Beta 2	5.7		3.2 - 6.5	0.2 - 0.5
Gamma	19.7	H	11.1 - 18.8	0.8 - 1.4
				6.8 - 8.7

Total Protein :
 Albumin / Globulines: 1.06

Ultrasound

- There is not mass lesion but there is a 138*110mm cystic lesion in liver without septation and internal echo that produce mild dilation of biliary tract in liver. CT for R/O hydatid cyst is recommended.

Liver sonography:
The mean longitudinal diameter of the liver in the midclavicular line was 112mm
The liver is normally homogeneous and iso echoic. there is not mass lesion in it but there is a 138*110mm
cystic lesion in liver with out septation and internal echo that produce mild dilatation of Biliary tract
in liver CT for R/O hydatid cyst is recommended . Portal vein and hepatic artery have normal size and
direction. (Pv : 7mm.) (Chd: 3 mm)

Gallbladder & bill duct
Gallbladder has normal wall thickness. there is not gallstones in it. Gallbladder distention is normal.
Gallstones/ sludge including the obstructing stone are not identified.
Common bill duct, hepatic ducts have normal size. There is not stone and obstruction in it. Cystic duct is
normally not visible.

Kidney
Rt kidney: 118mm length & 16mm paranchymal thickness.
Transverse & coronal sonograms demonstrating normal anatomy and corticomedullary differentiation in
kidney . it has normal echo parenchyma. Pyelocalyceal systems have normal shape. there is not stone &
hydronephrosis in it.

**Lt kidney is smaller than RT side 90mm length & 10mm parenchymal thickness there is not stone &
hydronephrosis in it.**

Bladder has normal thickness there is not pathology in it
Spleen has normal size and echo (82*33.mm)
Pancreas has normal echo there is not pathology in it
There is not lymphadenopathy in para aortic space

Uterus has normal size (103*51*36mm)there is not pathology in it
Endometer has normal thickness (4mm)
there is not irregularity in it
Both ovaries have normal volume
(RT: 5ml) (LT: 4/9ml).there is not mass and cyst in them

IMP: 1- cyst in liver CT for R/O hydatid cyst is recommended
2- Lt kidney is smaller than RT side

MDCT of the abdomen with contrast with triphasic protocol:

- ❖ *Liver has normal size and parenchymal density. There is a thin walled cyst (132x102mm) in segment four of left hepatic lobe and segment eight of right hepatic lobe. It has no septation, no calcification, no solid component and no enhancement.*
- ❖ *Spleen and pancreas are normal in size and shape without any evidence of space occupying lesion.*
- ❖ *Gallbladder and intrahepatic bile ducts as far as seen are normal.*
- ❖ *Adrenal glands are normal.*
- ❖ *No para-aortic adenopathy is seen.*
- ❖ *Right kidney has normal size.*
- ❖ *Left kidney is smaller than normal size.*
- ❖ *Both kidneys show normal shape and cortical thickness without any hydronephrosis or space occupying lesion.*
- ❖ *No ascites or pleural effusion is seen.*

IMP:

- *Large simple cystic lesion in liver (epithelial cyst or less-likely hydatid cyst)*
- *Small sized left kidney*

WITH kinDEST REGARDS

A. GHAZVI, MD

- Next step?



FEEDBACK

Dear Professor:

Thank you for introducing the patient. The patient was presented at the joint meeting of the commission and the grand round. The patient's documents were seen. After discussion and debates with our gastroenterologist colleagues and review of references and literatures, the following advisory decisions were made, which are announced to you for your information, help and, if you consider it appropriate, to apply:

Septation and other signs of hydatid cyst were not seen in the ultrasound view of the liver cyst, so it is most likely a simple liver cyst. Although the patient currently has no symptoms, considering the large size of the cyst and the reported compressive effects on the biliary ducts, it is recommended to consult an intervention radiologist. In terms of the possibility of diagnostic paracentesis of the cyst, it is advised to start albendazole at least one week before the possible intervention, and MRCP should be performed in terms of the connection of the cyst with the bile ducts.

If radiology intervention is not possible, surgical consultation should be done.



A 30-year-old female

Patient suffered from alopecia about 5 years ago, and after about 1 month, she suffered from hematochezia and frequent watery diarrhea. After evaluations, she was treated as IBD.

During these 5 years, the patient has had partial remission and some episodes of the flare up, so that she has been hospitalized 4-5 times and has been under treatment, and less frequent bleeding between attacks.

Currently, She experiences between 2-4 times of defecation each day along with hematochezia.

No fever or chills. No nausea or vomiting, but she complains of weight loss.

Drug history

Mesalazine 9 times a day

Azathioprine 2 times a day since one year after the onset of the disease until now

Baricitinib (4 mg) once a day since 6 months ago

1 iron tablet per day

2 vials of Remicade every month since 2 months ago

Lansoprazole 30 mg every 12 hours

Colonoscopy

1398.07.21

Reason for Endoscopy: BRBPR

Anus: Normal in inspection & DRE

Rectum : Scope was passed from anus up to cecum & evidence of mucosal edema & erythema & contact bleeding & decreased MVP were seen through colon.

Diagnosis : R/O Ulcerative colitis



Reason for Endoscopy : BRBPR
Bowel prep was suboptimal

Premedication : Pethedine + midazolam

Description of procedure : Optimum

Findings :

Anus : Normal in inspection & DRE

Rectum : Scope was passed from anus up to cecum & evidence of mucosal edema & erythema & contact bleeding & decreased MVP were seen through colon . Bx were taken from 1- RT colon 2- Transverse colon 3- LT colon & Rectum & sent for path exam.

Diagnosis : R/O Ulcerative colitis

Colonoscopy

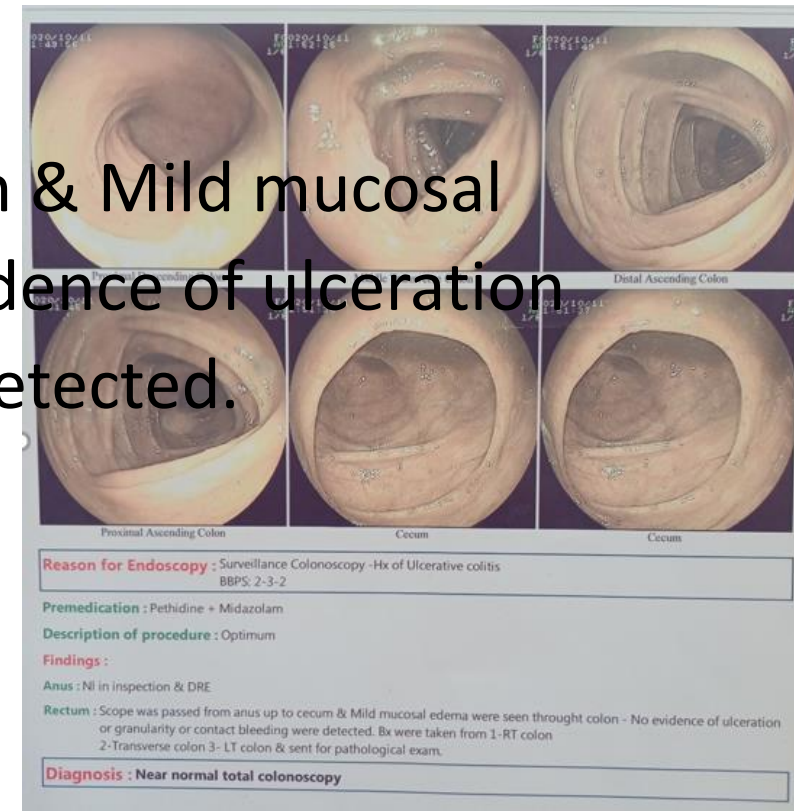
1399.07.20

Reason for Endoscopy: Surveillance Colonoscopy -Hx of Ulcerative colitis / BBPS: 2-3-2

Anus : NI in inspection & DRE

Rectum : Scope was passed from anus up to cecum & Mild mucosal edema were seen through colon - No evidence of ulceration or granularity or contact bleeding were detected.

Diagnosis: Near normal total colonoscopy



Lab Data

1400.11.02

WBC 8.9	ESR 1h 54	S/E: Watery – WBC 35-40
NEU 74% LYM 14% MIX 11%	ESR 2h 98	
RBC 3.3	CRP +++	
HB 10.4		
MCV 98		
MCH 31		
PLT 412		

Lab Data

1401.04.07

WBC 9.7	ESR 76	AST 39	S/E: Mucoidal – WBC 25-30 RBC 25-30
NEU 73% LYM 13% EOS 6.5%	CRP Positive	ALT 28	Stool OB: ++
RBC 2.8	BUN 20	ALK 292	
HB 9.4	CR 0.7	Billi.T 0.6	
MCV 94	EGFR 102	Billi.D 0.18	
MCH 32			
PLT 389			

Colonoscopy

1401.04.14

Reason for Endoscopy: Flare up ulcerative Colitis

Anus: Was normal

Rectum : Decreased Vascular pattern, edematoerythematous and fragile mucosa with ulceration were seen. Biopsies were taken.

Rectosigmoid Junction: Decreased Vascular pattern, edematoerythematous and fragile mucosa with ulceration were seen. Biopsies were taken.

Sigmoid : Decreased Vascular pattern, edematoerythematous and fragile mucosa with ulceration were seen.

Descending Colon : Decreased Vascular pattern, edematoerythematous and fragile mucosa with ulceration were seen.

Splenic Flexure : Decreased Vascular pattern, edematoerythematous and fragile mucosa with ulceration were seen.

Transverse Colon : Decreased Vascular pattern, edematoerythematous and fragile mucosa with ulceration were seen.

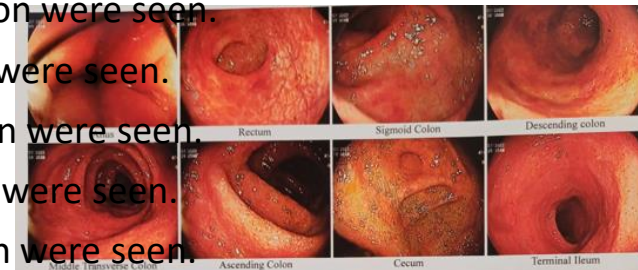
Hepatic Flexure : Decreased Vascular pattern, edematoerythematous and fragile mucosa with ulceration were seen.

Ascending Colon : Decreased Vascular pattern, edematoerythematous and fragile mucosa with ulceration were seen.

Cecum : Decreased Vascular pattern, edematoerythematous and fragile mucosa with ulceration were seen. **Terminal ileum :** Edema, erythema and aphthous like lesions were seen. Biopsies were taken.

Diagnosis: Pancolitis / Ileitis?

Recommendation : Follow up Pathology



Reason for Endoscopy : Flare up ulcerative Colitis
Procedure : Total colonoscopy
Description of procedure : Total colonoscopy was done up to terminal ileum. BBPS in left , transverse and right were 2-2-2.

Findings :
Anus : Was normal
Rectum : Decreased Vascular pattern, edematoerythematous and fragile mucosa with ulceration were seen. Biopsies were taken.
Rectosigmoid Junction : Decreased Vascular pattern, edematoerythematous and fragile mucosa with ulceration were seen. Biopsies were taken.
Sigmoid : Decreased Vascular pattern, edematoerythematous and fragile mucosa with ulceration were seen.
Descending Colon : Decreased Vascular pattern, edematoerythematous and fragile mucosa with ulceration were seen.
Splenic Flexure : Decreased Vascular pattern, edematoerythematous and fragile mucosa with ulceration were seen.
Transverse Colon : Decreased Vascular pattern, edematoerythematous and fragile mucosa with ulceration were seen.
Hepatic Flexure : Decreased Vascular pattern, edematoerythematous and fragile mucosa with ulceration were seen.
Ascending Colon : Decreased Vascular pattern, edematoerythematous and fragile mucosa with ulceration were seen.
Cecum : Decreased Vascular pattern, edematoerythematous and fragile mucosa with ulceration were seen.
Terminal Ileum : Edema, erythema and aphthous like lesions were seen. Biopsies were taken.

Diagnosis : Pancolitis / Ileitis?
Recommendation : Follow up Pathology

Pathology

1401.04.14

CMV: Negative

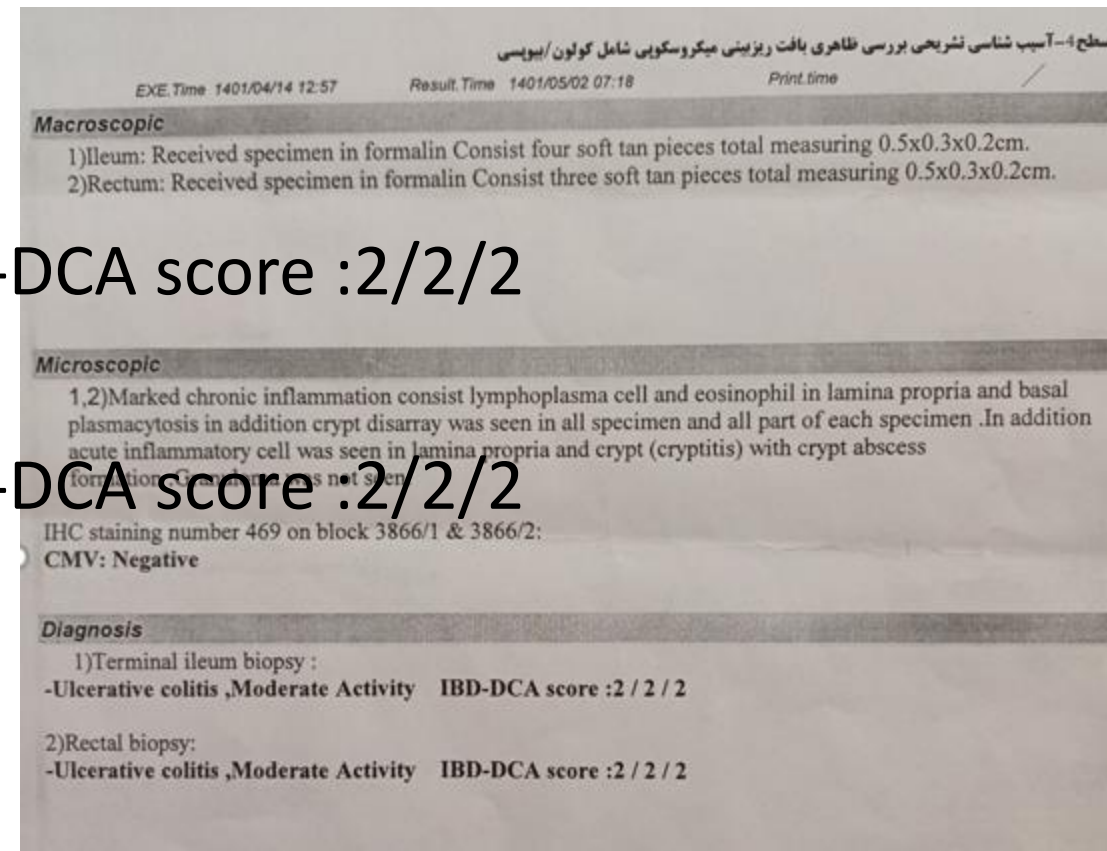
Diagnosis

1) Terminal ileum biopsy:

-Ulcerative colitis, Moderate Activity IBD-DCA score :2/2/2

2) Rectal biopsy:

-Ulcerative colitis, Moderate Activity IBD-DCA score :2/2/2



Lab Data

1401.06.17

WBC 9.3	ESR 65	AST 41	S/E: Loose - WBC 4-6
NEU 58% LYM 22% EOS 13%	CRP Weakly positive	ALT 23	
RBC 3.4	BUN 13	ALK 330	
HB 11.3	CR 0.6	Billi.T 0.79	
MCV 97	EGFR 115	Billi.D 0.2	
MCH 32			
PLT 382			

Lab Data

1401.07.25

WBC 7	AST 23	Clostridium difficile toxin Neg
NEU 50% LYM 25% EOS 20%	ALT 16	Calprotectin stool 722
RBC 3.5	ALK 296	
HB 11.1		
MCV 99		
MCH 31		
PLT 307		

Colonoscopy

1401.10.29

Reason for Endoscopy: Rectorrhagea, Known case of Ulcerative colitis

Anus : Normal

Rectum : Deep ulcers & spontaneous bleeding(Mayo score III) was seen that biopsies were taken.

Diagnosis : Active severe colitis(Mayo score III)

Recommendation : F/U pathology



Rectum Rectum Rectosigmoid Colon

Reason for Endoscopy : Rectorrhagia, Known case of Ulcerative colitis

Premedication : By anesthesiologist

Findings :

Anus : Normal.

Rectum : Deep ulcers & spontaneous bleeding(Mayo score III) was seen that biopsies were taken.

Diagnosis : Active severe colitis(Mayo score III)

Recommendation : F/U pathology

Pathology

1401.10.29

Diagnosis:

Rectum Biopsy

- Active chronic proctitis
- IBD score: A2 C2 D2

تاریخ نسخه،	۱۴۰۱/۱۰/۲۹	نام،	افسانه - مجرد	کد پذیرش،	۳۰۵۵۰
تاریخ جواب،	۱۴۰۱/۱۱/۰۴	شماره پاتولوژی،	s01-11778	جنس،	زن
پزشک،	بیمارستان الزهرا - اصفهان	پزشک ارجاع،	--	سن،	۲۹

History:
Patient is 29 years old female known case of UC.

Macroscopic:
Received specimen in formalin consists three soft tan pieces total measuring 0.7x0.4x0.2cm.

Microscopic:
Marked chronic inflammation consist lymphoplasma cell and eosinophil in lamina propria and basal plasmacytosis was seen. In addition, crypt disarray was noted in all the specimen and all part of each specimen. Also, infiltraton of acute inflammatory cells was seen in lamina propria and crypt (cryptitis) with crypt abscess formation. Granuloma was not seen.

Diagnosis :
Rectum Biopsy:
- Active chronic proctitis
- IBD score: A2 C2 D2

دکتر محمد حسین صانعی

Lab Data

1402.08.11

WBC 5.3	FBS 67	AST 44	S/E: Mucoid/WBC 30-35
NEU 67% LYM 19% MIX 13%	BUN 10	ALT 35	S/C: Neg
RBC 2.9	CR 0.8	ALK 374	Stool OB: Trace
HB 10.5	TG 96		
MCV 106	Na 137		
MCH 35	K 4		
PLT 277	TSH 2.4		



Is it safe to use **Baricitinib** and **Remicade** at the same time?

FEEDBACK

Dear Professor:

Thank you for introducing the patient. The patient was presented at the joint meeting of the commission and the grand round. The patient's documents were seen. After discussion and debates with our gastroenterologist colleagues and review of references and literatures, the following advisory decisions were made, which are announced to you for your information, help and, if you consider it appropriate, to apply:

In the review of medical texts and literature, the simultaneous use of Barcitinib and infliximab has not been investigated, but the use of other jacks2 inhibitors with infliximab has been reported in small numbers in case series, and due to the risk of increasing some infections, it is not recommended.

In the references, due to the little information, the use of this drug with other immunomodulators is not recommended.

Considering the recent initiation of Infliximab, it is recommended to continue this drug until the effect is determined and preferably to stop Barcitinib. If there is a strong desire to continue the treatment of alopecia, you can consult with a dermatologist about replacing **Tofacitinib** instead of Barcitinib, which will probably be effective alone for the treatment of colitis and alopecia.

