



“G. d’ANNUNZIO” University
CHIETI-PESCARA, ITALY
Department of Medicine and Science of Aging
Unit of Internistic Ultrasound



An unusual case of **abdominal pain**

Tana Claudio, MD

ESIM 2014

Saas See, Switzerland January 12-18, 2014

Case History

- 34 year-old-man
- Alcoholic liver cirrhosis previously complicated by ascites and encephalopathy
- He presented with fever, jaundice and epigastrium pain, lasting 2 weeks
- No changes in bowel habits. He denied recent alcohol consumption.
- Medications: spironolactone (100 mg/day) and furosemide (25 mg twice daily).

Physical examination

- **BP**100/60 mmHg, **HR** 125 bpm, **RR** 16 breaths/min.
Body temperature 38.8 °C
- Pz alert and oriented
- Normal **cardiac** and **respiratory** examination
- **Abdominal**: right hypocondrium tenderness with local distension, positive Murphy's sign and reduction of peristalsis. The liver was palpable 3 cm below the right costal margin. No signs of ascites.

Blood tests

- **Leukocytosis** ($11.0 \times 10^9/L$) with **neutrophilia** ($8.9 \times 10^9/L$)

Mild Thrombocytopenia ($109 \times 10^3/\text{microL}$)

Hemoglobin in the normal range (HB 13.2 g/dl)

- Erythrocyte sedimentation rate (**ESR**): 118 mm/h
- C-reactive protein (**CRP**): 5 mg/dl
- **GOT**: 275 U/L, **GPT**: 56 U/L. **Blood alcohol level**: $< 0.010 \%$.
- **Gamma-gt**: 225 U/L, **alkaline phosphatase**: 203 U/L
- **Total and direct bilirubin**: 7.49 and 5.57 mg/dL, respectively.

Clinical suspicion ?

Other exams ?

- **Blood culture:** negative

- **ECG:** sinus tachicardia (HR 120 bpm), no other relevant findings

- **Chest X-ray:** negative

- **Abdominal ultrasound:** liver with irregular margins, coarse echo pattern and caudate lobe hypertrophy, splenomegaly, no ascites, and....

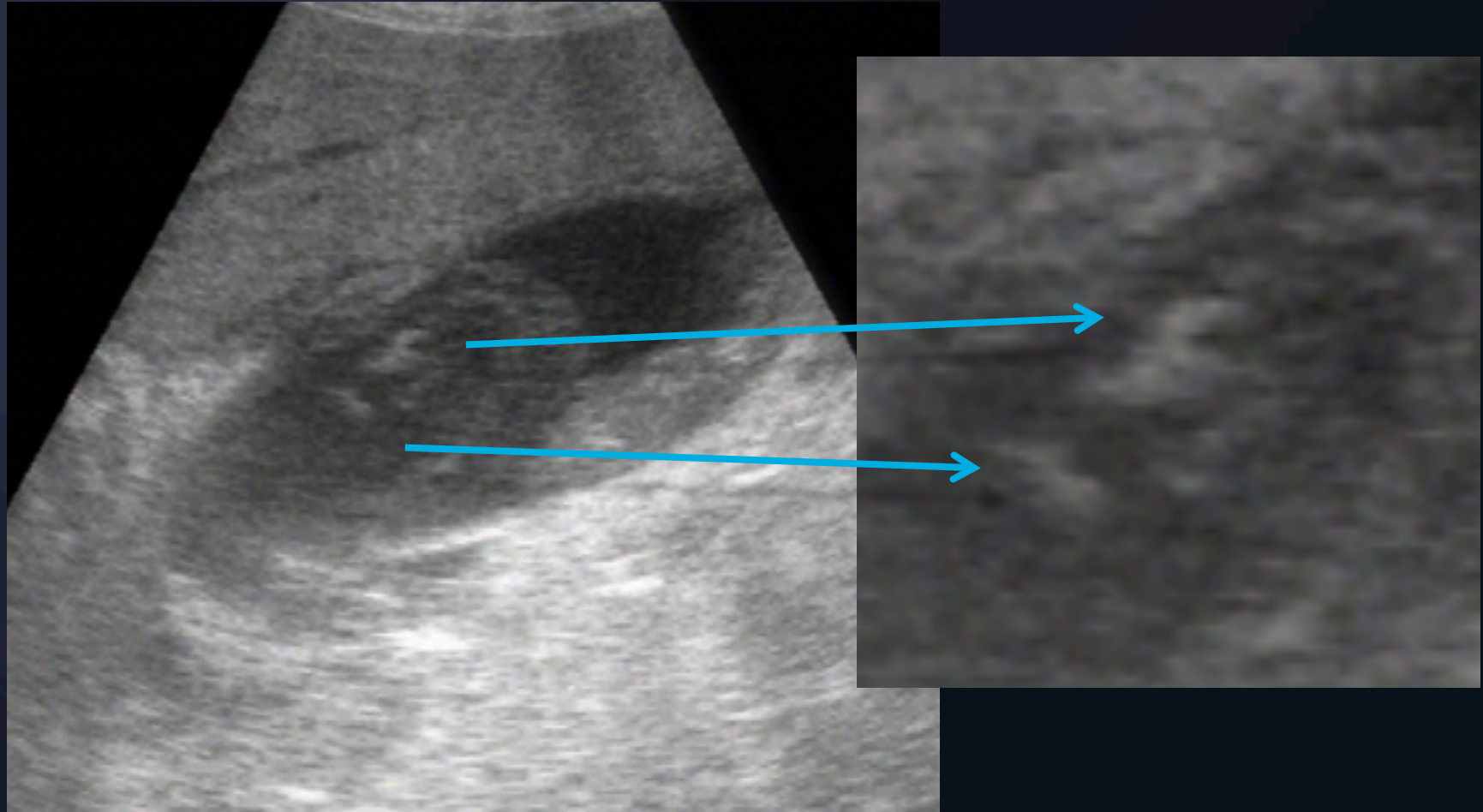
Ultrasound



- Distended gallbladder and enlarged common bile duct
- Thickened walls with hypoechoic rim
- Lumen filled with multiple echos, compatible with biliary sludge (green arrowheads)

Ultrasound findings suggestive of **acute cholecystitis**

And this ?



Nonshadowing and spontaneously floating echos (blue arrows)

*Can we start empiric antibiotic
therapy ?*

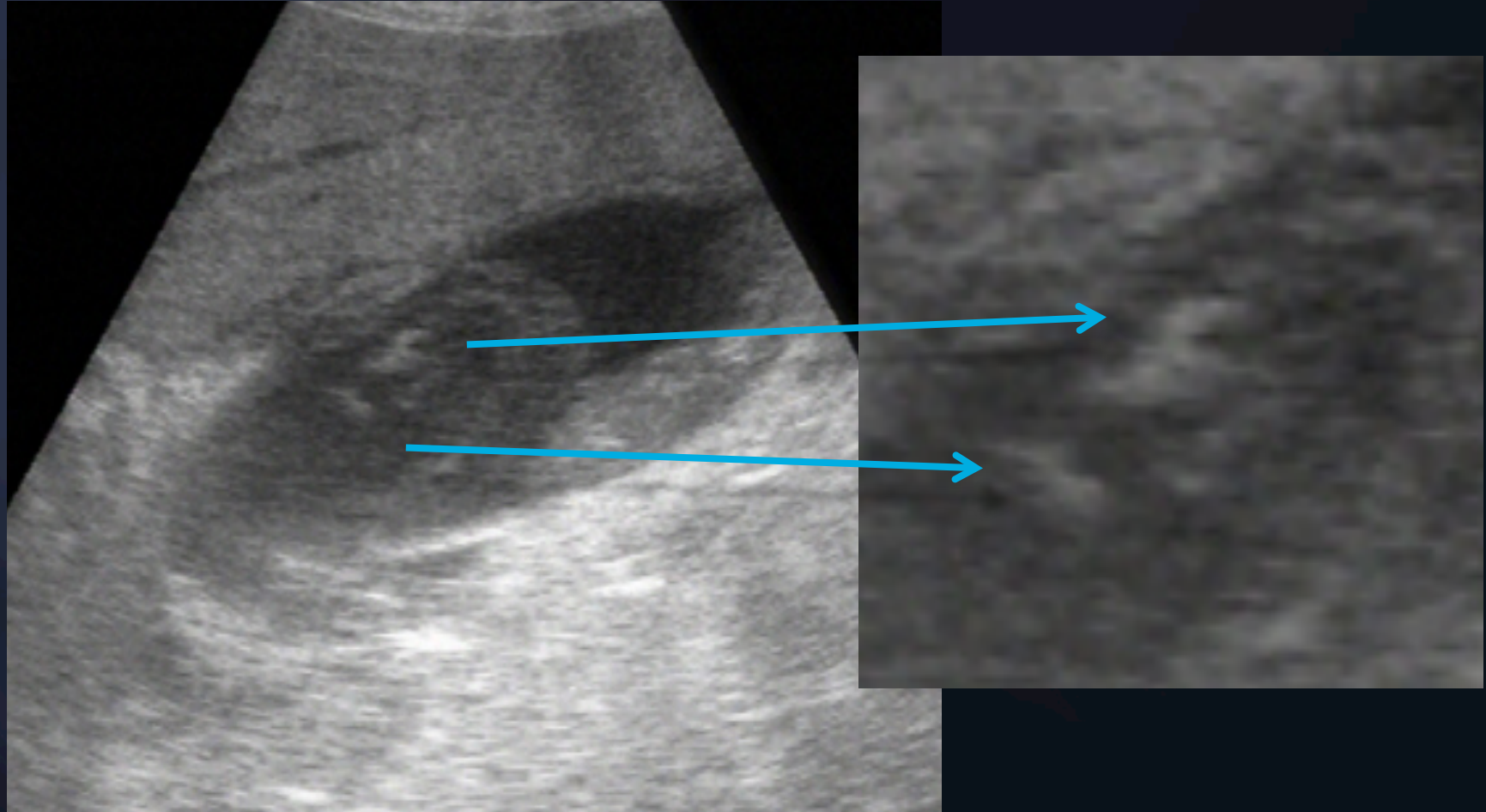
Did we forget anything ?

- The next day, a medical student started to collect medical history...

...the patient reported having recently made a journey to China, during which he had eaten typical local food, such as the ‘ ‘Yusheng’ ’, a chinese raw fish salad...

Stool examination was therefore performed
and was positive for **Clonorchis sinensis**

Go back to US...



Non-shadowing and **spontaneously** floating echos compatible with flukes of *Clonorchis sinensis*

Diagnosis

Acute cholecystitis caused by trematodes

The patient became asymptomatic with improvement of laboratory tests after treatment with mebendazole.

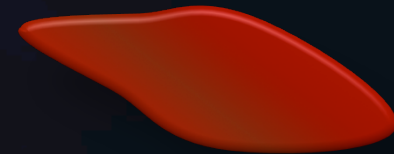
Parasitic disease of the biliary tract

Trematode infections are endemic in countries such as China, but occasionally can infect travellers from non-endemic areas

CLASSIFICATION

Most important

- Clonorchis sinensis
- Opisthorchis viverrini
- Ascaris lumbricoides



Others: Opisthorchis felinus, Dicrocoelium dendriticum

Clonorchiasis

BILIARY COMPLICATIONS

Acute clonorchiasis

- Acute cholecystitis
- Acute cholangitis
- Obstructive jaundice

- Recurrent pyogenic cholangitis

- cholangiocarcinoma

Chronic clonorchiasis

Sonographic findings of active clonorchis sinensis infection



Increased periductal echogenicity (IPDE)

Sens 35 % - Spec 91 %
P < 0.001; R= 0.11

Spontaneously floating echogenic foci in the gallbladder (FEFGB)

Sens 28 % - Spec 94 %
P < 0.001; R = 0.09

Diffuse dilatation of the intrahepatic bile ducts

Sens 67 % - Spec 48 %
P < 0.01; R= 0.03

Gallbladder distension

Sens 3 % - Spec 100 %
P < 0.05; R= 0.02

Take home messages...

- Careful medical history (and medical students !) are fundamental for a correct diagnostic approach
- By showing spontaneously floating echogenic foci, ultrasound can reach a high specificity in the diagnosis of gallbladder parasitosis

Read more

Intern Emerg Med

DOI 10.1007/s11739-013-0974-2

CE - MEDICAL ILLUSTRATION



Gallbladder infection by trematodes

Claudio Tana • Andrea Mezzetti • Cosima Schiavone

Received: 2 April 2013 / Accepted: 24 June 2013

© SIMI 2013

Intern Emerg Med 2013; 8(8):761-3.



"G. d'Annunzio" University, Chieti-Pescara, Italy



SIMI

Società Italiana di Medicina Interna

SOCIETÀ ITALIANA
DI MEDICINA INTERNA

Thank You