



Intrabdominal Mass

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General Data:

G.F.

21 y/o

Male

Sampaloc



Chief Complaint:
Abdominal pain



History of Present Illness

1 week PTA → abdominal pain, RUQ,
crampy
fever (on/off)
loose watery stools
- non blood streaked
- yellowish





History of Present Illness

3 days PTA → persistence of signs and
symptoms with increase in
severity of abdominal pain
consult at local health center

dx: (?)

Rx: Co-trimoxazole





History of Present Illness

Few hours PTA → persistence of signs and
symptoms
consult at OMMC-
IM-ER





Past Medical History

- unremarkable



Personal and Social History

- Smoker
- Alcoholic beverage drinker
- (+) illicit drugs



Physical Examination

General Survey:

conscious, coherent, not in
cardiorespiratory distress

Vital Signs:

BP = 120/80

CR = 104

RR = 20s

Temp = 38.5°C



Physical Examination

HEENT:

Pink palpebral conjunctivae, icteric sclerae,

Chest and Lungs:

Symmetric chest expansion, no retractions, clear and equal breath sounds



Physical Examination

Heart:

adynamic precordium, normal rate,
regular rhythm, no murmurs



Physical Examination

Abdomen:

Slightly distended, palpable enlarged liver
4cm below R costal margin; tenderness
at RUQ and epigastric area

Extremities:

Grossly normal, full and equal pulses



Salient Features

- 21 y/o male
- Abdominal pain
- Fever
- Loose watery stools
- Enlarged liver
- Jaundice
- Direct tenderness at RUQ and epigastric area



Clinical Diagnosis

	<i>Diagnosis</i>	<i>Certainty</i>
<i>Primary Diagnosis</i>	Hepatic Abscess	80%
<i>Secondary Diagnosis</i>	Hepatitis	20%



Paraclinical Diagnostic Procedure

- Do I need to perform a paraclinical diagnostic procedure?

Yes



Paraclinical Diagnostic Procedure

	Benefit	Risk	Cost	Availability
CXR	Sensitivity: 50%	Radiation	+	(+)
UTZ	Sensitivity: 75-80%	none	+	(+)
CT scan	Sensitivity: 88-95%	Radiation	++	(-)
MRI	Sensitivity: 88-95%	none	+++	(-)



Paraclinical Diagnostic Procedure

UTZ of the HBT (initial)

- Complex mass
 - 9 x 6 x 7 cm
 - left lobe
 - probably an abscess



Pre Treatment Diagnosis

	<i>Diagnosis</i>	<i>Certainty</i>
<i>Primary Diagnosis</i>	Hepatic Abscess prob Amoebic	90%
<i>Secondary Diagnosis</i>	Hepatic Abscess prob pyogenic	10%



GOALS OF TREATMENT

- Resolution of the liver abscess
- Least morbidity and mortality



Treatment Options

	Benefit	Risk	Cost	Availability
Medical/ Antibiotic Treatment Only	+	RR = 10%	(+)	Available
Aspiration	++	bleeding	(++)	Available
Open Surgery	+++	bleeding	(+++)	Available



Treatment Plan

UTZ guided aspiration



Pre Operative Management

- Psychosocial support
- Optimize patient
 - Adequate hydration
 - Adequate antibiotic coverage
- Prepare materials



Percutaneous Aspiration

- Patient in a supine position under local anesthesia
- Asepsis and antisepsis techniques observed
- Sterile drapes placed
- UTZ guided aspiration done



Operative Findings

- Approximately 20cc of hemopurulent (anchovy paste) fluid aspirated



Final Diagnosis

Hepatic Abscess, Amebic, Left lobe



Postoperative Management

- First POD*** → Diet as tolerated
IV antibiotics continued
Supportive care
- Third POD*** → shifted to oral meds
Metronidazole 500mg/tab 1 tab q6
- Fourth POD*** → oral meds continued
repeat UTZ of HBT done: Regression of the
previously noted hepatic mass
- Fifth POD*** → MGH



Follow up Plan

- Continue medications at home until day 10 then start Diloxanide 500mg/tab 1 tablet every 8 hours for 10 days
- Resume normal daily activities
- Follow up after a week or earlier if any problem arises



After Managing the Patient

- I HAVE DISCHARGED MY PATIENT :
 - IMPROVED
 - FREE OF COMPLICATIONS
 - HAPPY AND CONTENTED WITH THE OUTCOME



Discharge Advise

- Observe proper hygiene
- Avoid eating/drinking food of questionable source



Sharing of Information



Discussion

Amebic Liver Abscess

- most frequent extraintestinal manifestation of *Entamoeba histolytica* infection.
- Ascension through the portal venous system.
- important cause of space-occupying lesions of the liver, mainly in developing countries
- Prompt recognition and appropriate treatment of amebic liver abscess lead to improved morbidity and mortality rates.



Discussion

Amebic Liver Abscess

- right lobe of the liver is more commonly affected
- right lobe is supplied predominantly by the superior mesenteric vein, whereas the left lobe is supplied by the splenic vein.



Discussion

Amebic Liver Abscess

- Worldwide, 40-50 million people are infected annually
- majority occurring in developing countries
- may be as high as 50% in less-developed areas
- highest prevalence is found in developing countries in the tropics, particularly in Mexico, India, Central and South America, and tropical areas of Asia and Africa.



Discussion

Amebic Liver Abscess

– Indications for Aspiration

1. high risk of abscess rupture, as defined by cavity size greater than 5 cm
2. left lobe liver abscess, which is associated with higher mortality and frequency of peritoneal leak or rupture into the pericardium
3. failure to observe a clinical medical response to therapy within 5-7 days.



Discussion

Amebic Liver Abscess

- Generally, surgical drainage is not necessary and should be avoided
- Indications for surgical drainage:
 1. abscess is inaccessible to needle drainage
 2. response to therapy has not occurred in 4-5 days.



Discussion

Amebic Liver Abscess

Complications:

- ***Pleuropulmonary infection***
 - most common complication
 - Mechanisms:
 - development of a sympathetic serous effusion
 - rupture of a liver abscess into the chest cavity leading to empyema
 - hematogenous spread, resulting in parenchymal infection.



Discussion

Amebic Liver Abscess

Complications:

- ***Bronchopleural fistula***
 - may occur in rare instances when patients expectorate a substance that resembles anchovy paste
 - Trophozoites may be demonstrated in the fluid.
 - Occasionally, this complication may be followed by a spontaneous cure of the amebic liver abscess.



Discussion

Amebic Liver Abscess

Complications:

- *Cardiac involvement*
 - rupture of an abscess involving the left lobe of the liver
 - It usually is associated with very high mortality.



Discussion

Amebic Liver Abscess

Complications:

- ***Intraperitoneal rupture***
 - occurs in 2-7% of patients
 - Left lobe abscesses are more likely to progress to rupture because of their later clinical presentation.



Discussion

Amebic Liver Abscess

Complications:

- *Bacterial superinfection can occur.*
- *Rupture into peritoneal organs (eg, stomach) and mediastinum can occur.*
- *One case of hepatic artery pseudoaneurysm has been reported.*



Discussion

Amebic Liver Abscess

Prognosis:

- rapid clinical improvement is observed in less than 1 week with antiamebic drug therapy alone
- Radiological resolution lags behind the resolution of clinical symptoms.
- The average time to radiological resolution is approximately 12 months, with a range of 3-131 months.



Discussion

Amebic Liver Abscess

Prognosis:

- Death occurs in approximately 5% of persons having extraintestinal infection, including liver abscess.
- Rupture into the peritoneal cavity and the pericardium are responsible for most deaths.



Discussion

Amebic Liver Abscess

Prognosis:

- **The following are the independent risk factors predicting a higher mortality:**
 - **Bilirubin level greater than 3.5 mg/dL**
 - **Encephalopathy**
 - **Volume of abscess cavity greater than 500 mL at presentation**
 - **Serum albumin less than 2 g/dL**
 - **Hemoglobin less than 8 g/dL**
 - **Multiple abscesses**



References

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4. Akoad M, Pyogenic Hepatic Abscesses, eMedicine, 2005.
5. Lingvay I, Amebic Hepatic Abscesses, eMedicine, 2005.
6. Cameron J, Current Surgical Therapy 8th Ed., Mosby Inc, Philadelphia, 2004.



MCQ #1

- 1) The development of Pleuropulmonary infection, the most common complication of amoebic liver abscess can be due to the following mechanisms:**
- a) development of a sympathetic serous effusion**
 - b) Inhalation of aerosol containing trophozoites**
 - c) lymphatic spread, resulting in parenchymal infection.**
 - d) all**



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 - b) Inhalation of aerosol containing trophozoites
 - c) lymphatic spread, resulting in parenchymal infection.
 - d) all



MCQ #2

2. Which of the following complications may be followed by a spontaneous cure of the amebic liver abscess.

- a. Cardiac involvement
- b. Bronchopleural fistula
- c. Pleuropulmonary complications
- d. Intraperitoneal rupture



MCQ #2

2. Which of the following complications may be followed by a spontaneous cure of the amebic liver abscess.

- a. Cardiac involvement
- b. Bronchopleural fistula**
- c. Pleuropulmonary complications
- d. Intraperitoneal rupture



MCR #1

3) A patient came in with abdominal pain, febrile, with an UTZ result of a 4 x 3 x 5 mass at the left lobe, and has been on oral Metronidazole for 7 days without apparent improvement in his condition. Which of the following are indications for needle aspiration?

(a = 1,2,3; b = 1,3; c = 2,4; d = 4 only; e = all)

1. Location (left lobe)
2. Size of the mass (4 x 3 x 5)
3. No response to antibiotic intake (Metronidazole)
4. Presence of fever



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MCR #2

4. Which of the following complications are responsible for most of deaths due to amebic liver abscess?

(a = 1,2,3; b = 1,3; c = 2,4; d = 4 only; e = all)

1. Cardiac Involvement
2. Pleuropulmonary Complications
3. Intraperitoneal rupture
4. Bronchopleural fistula



MCR #2

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(a = 1,2,3; **b = 1,3**; c = 2,4; d = 4 only; e = all)

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2. Pleuropulmonary Complications
- 3. Intraperitoneal rupture**
4. Bronchopleural fistula



MCR #3

5. In the preceeding report, the following were identified as independent risk factors predicting a higher mortality.

(a = 1,2,3; b = 1,3; c = 2,4; d = 4 only; e = all)

- 1. Bilirubin level greater than 3.5 mg/dL**
- 2. Multiple abscesses**
- 3. Hemoglobin less than 8 g/dL**
- 4. Age**



MCR #3

5. In the preceeding report, the following were identified as independent risk factors predicting a higher mortality.

(a = 1,2,3; b = 1,3; c = 2,4; d = 4 only; e = all)

- 1. Bilirubin level greater than 3.5 mg/dL**
- 2. Multiple abscesses**
- 3. Hemoglobin less than 8 g/dL**
- 4. Age**

Thank You.