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Amoebic Liver Abscess With Pleural Emphyema: A Unique Case Report

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Abstract : Liver abscess presenting with pleural effusion is rare case presented itself having Liver abscess with pleural effusion with ectopic malrotated kidney . Case initially had symptoms of liver abscess but on ultrasound it was found to be accompanied with pleural effusion and malrotated ectopic kidney .In case of liver abscess diagnosis usually involves blood tests, stool examination , imaging studies such as ultrasound, CT scan, or MRI. Treatment typically includes antibiotics for pyogenic abscesses and anti-parasitic medication for amoebic abscess. But with added complication of pleural effusion it proved to be a challenge.

Introduction : A liver abscess is a collection of pus that forms within the liver. It can be a serious medical condition and requires prompt medical attention. There are two primary types of liver abscesses: Pyogenic Abscess: This type of abscess is caused by a bacterial infection, most commonly by bacteria like Escherichia coli (E. coli) or Klebsiella. These bacteria typically enter the liver through the bloodstream or from an infection in another part of the body, such as an abdominal infection or an infected gallbladder.

Amoebic Abscess: This type of abscess is caused by a parasitic infection, specifically the amoeba Entamoeba histolytica. The amoeba can reach the liver through the bloodstream after infecting the intestines, leading to an amoebic liver abscess.

Common symptoms of a liver abscess include:

Abdominal pain, especially in the upper right side Right Upper quadrant, Fever and chills, Jaundice (yellowing of the skin and eyes), Nausea and vomiting, Appetite loss, Fatigue

Pleural effusion is a medical condition characterized by an abnormal accumulation of fluid in the pleural space, which is the thin, fluid-filled space between the two layers of the pleura, a membrane that surrounds the lungs. This condition can be caused by various underlying medical conditions and can lead to respiratory problems.

Causes of Pleural effusion can be caused by a variety of underlying conditions, including: Infections (such as pneumonia or tuberculosis), Heart failure, Liver disease, Kidney disease, Cancer (lung cancer, breast cancer, and others), Inflammatory conditions (like rheumatoid arthritis), Pulmonary embolism (a blood clot in the lung), Trauma or injury to the chest , Certain medications , Idiopathic (no identifiable cause)

Symptoms: Common symptoms of pleural effusion may include:

Shortness of breath, Chest pain (typically sharp and worse with deep breathing or coughing), Cough , fever (if the cause is an infection), reduced lung function

Diagnosis: To diagnose pleural effusion, a healthcare provider may use various tests, including physical examination, chest X-rays, CT scans, ultrasound, and pleural fluid analysis. The fluid can be extracted through a procedure called thoracentesis and analyzed to determine the underlying cause.

Treatment: the underlying cause needs to be eradicated. It may include: Treating the underlying condition (e.g., antibiotics for infection)

Removing excess pleural fluid through thoracentesis or tube thoracostomy

Medications to reduce inflammation or manage symptoms ,surgical procedures (intercoastal drainage)

Prognosis: The prognosis for pleural effusion varies widely based on the cause and the timeliness of treatment. In many cases, pleural effusion can be successfully managed and treated.

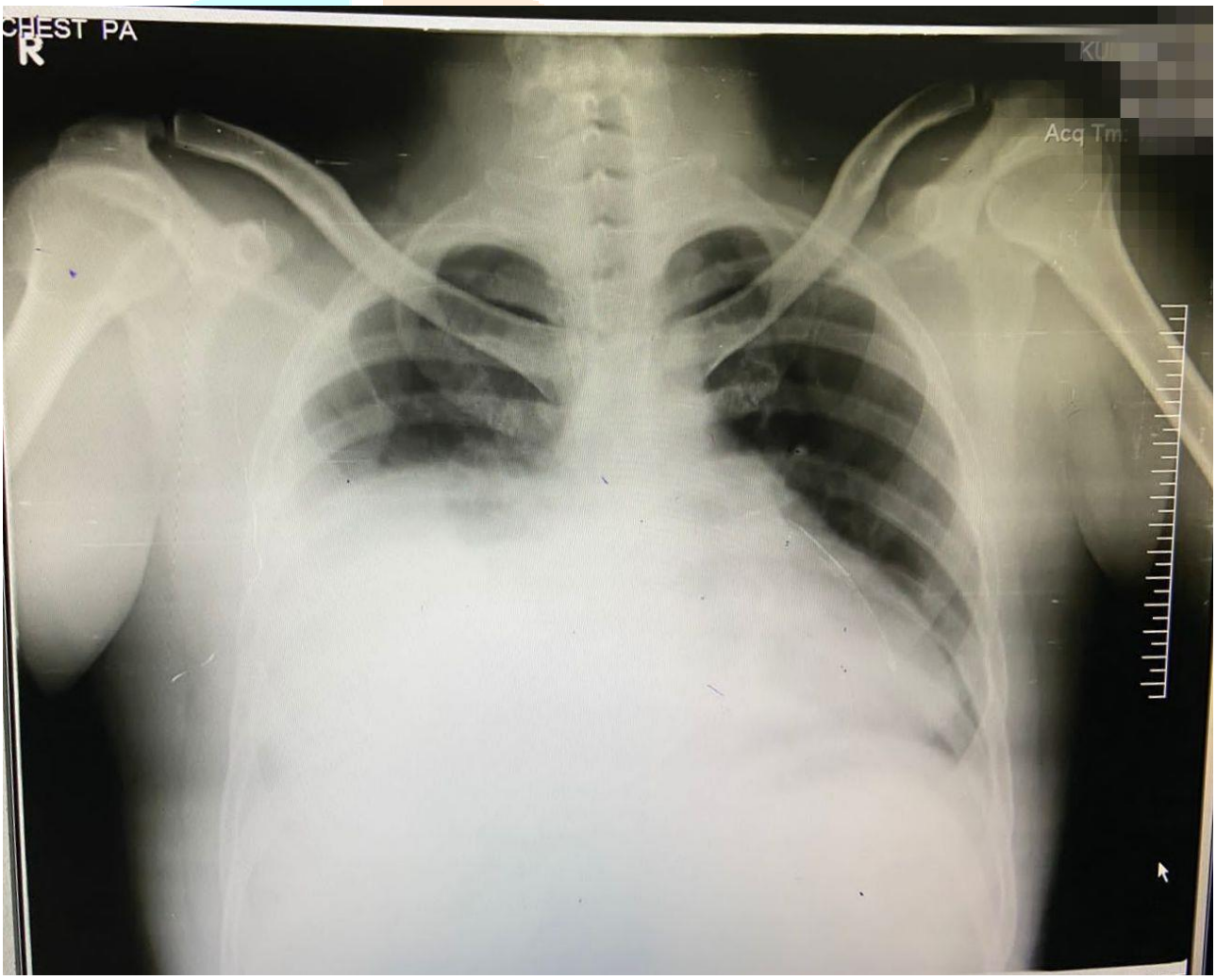
Case Report : A 27 year old male came with c/o abdominal pain for 10 days , which is insidious in onset , intermittent in nature , dull-aching type of pain , aggregates on inspiration , no relieving factor. He also gives history of one episode of fever, high grade, continuous type not associated with chills and rigors. The patient also gives history of loose stools 10 days back .No history of abdominal distension, nausea ,vomiting. No history of micturition, haematuria , malena . No h/o lack of appetite. He has a history of left Lobe Liver abscess diagnosed 10 days back and treated conservatively. He is well built and well nourished. His haemoglobin was 14.2g/dl with a WBC count of 14600/cu mm and platelet count of 450000/cu mm. His serology was non-reactive and the rest of the blood parameters were within normal physiological range .Routine Chest X ray showed Right Pleural Effusion with lower lobe collapse .USG Abdomen shows Liver has two well-defined heterogeneous hypo echoic sub diaphragmatic lesions involving segment VIII (76*75*52 mm) and segment IV A (60 * 56 mm) along with right mild pleural effusion with collapse of adjacent right lower lobe , Ectopic malrotated left kidney seen below aortic bifurcation . Hence a diagnosis of Amoebic Liver Abscess with right pleural effusion .Left Ectopic Kidney malrotated was made. After initial treatment with iv fluids and antibiotics a pig tail catheter under was inserted to drain liver abscess, 50 ml anchovy sauce obtained sent for culture . Whereas for the pleural effusion intercostal 500 ml was drained and put on regular antibiotics and adequate precaution and care was given , Patient symptomatically improved after intervention .

Discussion

The presence of a liver abscess and pleural effusion in a patient can be indicative of a serious medical condition and may be associated with specific underlying causes .The relationship between liver abscess and pleural effusion can occur in certain scenarios such as Ruptured Liver Abscess: If a liver abscess ruptures, it can release its contents, including bacteria and pus, into the abdominal cavity. This can lead to peritonitis (inflammation of the abdominal lining) and, in some cases, the spread of infection to the pleural cavity, resulting in pleural effusion. Thoracic Complications: In some cases, the infection from a liver abscess may directly spread to the pleura, causing pleuritis and effusion. The management of such cases involves addressing the liver abscess and pleural effusion, often with a combination of antibiotics, drainage of the abscess, and treatment of the underlying cause

If left untreated, a liver abscess can lead to serious complications, such as the spread of infection to other organs or the development of an abscess rupture, which can be life-threatening. Therefore, early diagnosis and proper medical care are essential to manage this condition effectively.

Prognosis: With prompt diagnosis and appropriate treatment, most bacterial liver abscesses can be successfully treated. However, if left untreated, the condition can lead to severe complications, including sepsis or rupture of the abscess into the abdominal cavity, which can be life-threatening.



Conclusion

Liver abscess along with Pleural emphyema and ectopic kidney is a unique medical case in clinical level . Thus an opportuity to witness treatment of such a case is a reward on its own .This case required an immediate intervention due to the symptoms , as such early treatment made the recovery of the patient successful .It's crucial to seek immediate medical attention for a liver abscess with pleural effusion, as prompt treatment is essential to prevent complications annd promote recovery.

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