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Successful Benzimidazoles Therapy for Disseminated Echinococcosis with Diaphragmatic Invasion

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BACKGROUND

- Disseminated echinococcosis is an uncommon condition in areas with low prevalence, often posing significant diagnostic and therapeutic challenges.
- This case highlights the clinical complexity of multiloculated cysts with diaphragmatic invasion and the effectiveness of antiparasitic therapy.

CASE PRESENTATION

- A 74-year-old male presented with a two-month history of fatigue, abdominal distension and dyspnea on exertion
- A chest X ray revealed an elevated left hemidiaphragm.
- Chest CT scan identified a large, multiloculated cystic mass in the left upper quadrant of abdomen (14.6 cm x 11.6 cm) with daughter cysts, arising from the left hepatic lobe. Additionally, a 2.8 cm cystic lesion in the subaortic region was suggestive of mediastinal hydatid cyst.
- Over the following year, his symptoms of abdominal distension and dyspnea worsened.
- A repeat CT scan of the abdomen demonstrated a significantly enlarged multiloculated cystic lesion (16.3 cm x 11.5 cm x 19.3 cm) with internal septation in the left upper abdomen, diaphragmatic invasion, and extension into the left chest (Figure 1A-1B).
- A large mass (8.4 cm x 7.8 cm) in the rectovesical area was also noted.
- Percutaneous aspiration of the cyst was performed without complication.
- The aspirated fluid contained multiple hooklets (Figure 2)

IMAGING FINDINGS

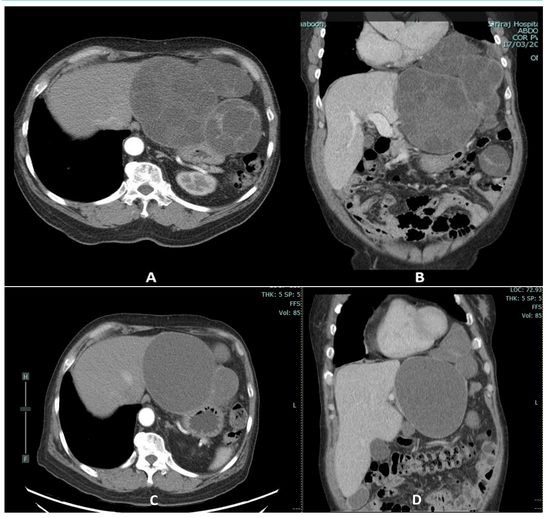

Figure 1: Initial CT scan showed multiloculated cystic lesion with internal septation, extends anteromedially to the chest, suggesting possible diaphragmatic invasion (A: axial plane; B: coronal plane) and CT scan one year later, revealed a decreased size of multiple multiloculated cysts, decreased septation, and a decreased in the number of daughter cyst.

DIAGNOSTICS

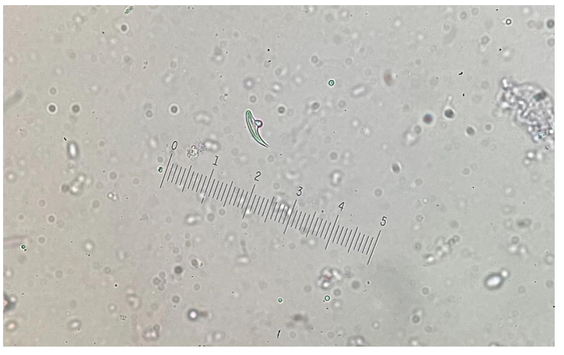

Figure 2: A hooklet of Echinococcus spp. in the aspirated cystic fluid (32.5 microns x 7.5 microns; fresh smear at x 40, original magnification).

Laboratory & Diagnosis

- Conventional PCR testing targeting Cob and LSU genes confirmed the presence of *Echinococcus granulosus*
- Immunoblot for echinococcus antibodies was positive
- **The final diagnosis was disseminated hydatid cyst due to *Echinococcus granulosus.***

Management

- Owing to the high surgical, the patient was started on albendazole 400 mg twice daily.
- His symptoms gradually improved and a follow-up CT scan one year later showed a reduction in cyst size, septation, and the number of daughter cyst (Figure 1C-1D) .

CONCLUSION

- Disseminated echinococcosis is uncommon in areas with low prevalence.
- Surgery are indicated for exceptionally large, active cysts or those with extrahepatic spread; however, a careful management of risk and benefit is essential.
- Benzimidazoles should be considered prior to intervention. Given the variability of disseminated echinococcosis, individualize treatment plans are necessary.