Extrapleural hydatid disease of chest: a case of recurrent hydatid disease

Ameer Ali Khowaja
Aga Khan University

Saqib Ali Gowani
Aga Khan University

Asmatullah Khan
Aga Khan University

Saulat H. Fatimi
Aga Khan University

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symptomatic patients. Biopsy is recommended even when the imaging presentation seems typical of elastofibroma. The pathologic findings are diagnostic. No treatment is necessary in the asymptomatic patient. There have been no reported cases of malignant transformation. Briccoli et al\textsuperscript{3} at the last clinical evaluation of the operated patients observed that excised lesions had no evidence of local recurrence or joint disability, whereas a recurrence rate of 7% in another study has been related to incomplete surgery.\textsuperscript{2} On the other hand Muramatsu et al,\textsuperscript{10} reported that postoperative haematoma formation was an important complication of surgical treatment. Naylor et al\textsuperscript{7} stated that increased awareness of the characteristic appearance and location of these benign, often asymptomatic lesions will increase radiologic diagnosis, decrease the need for biopsy, and decrease surgical removal of elastofibromas as presumed malignancies.

References
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Case Report

Extrapleural Hydatid Disease of Chest: A Case of Recurrent Hydatid Disease
Ameer Ali Khowaja\textsuperscript{1}, Saqib Ali Gowani\textsuperscript{2}, Asmatullah Khan\textsuperscript{2}, Saulat Hasnain Fatimi\textsuperscript{3}
Department of Biological and Biomedical Sciences\textsuperscript{1}, Medical Students\textsuperscript{2}, Cardiothoracic Section, Department of Surgery\textsuperscript{3}, Aga Khan University, Karachi.

Abstract
Hydatid disease is a parasitic infestation by a tapeworm of the genus Echinococcus. We present the case of a 34 year old female who complained of chest pain and had a past history of hydatid cyst resection four times in last 15 years. She was found to have extrapleural hydatid cysts of chest that were removed via thoracotomy. The patient fully recovered and experienced an uneventful follow-up.

Introduction
Hydatid disease is a worldwide zoonosis produced by the larval stage of the Echinococcus tapeworm. Of the 4 known species of Echinococcus, 3 are of medical importance in humans. These are Echinococcus granulosus, causing cystic echinococcosis (CE); Echinococcus multilocularis, causing alveolar echinococcosis (AE); and Echinococcus vogeli. E granulosus is the most common of the three. E multilocularis is rare but is the most virulent, and E vogeli is the rarest. The two main types of hydatid disease are caused by E granulosus and E multilocularis. The former is commonly seen in the great grazing regions of the world — particularly the Mediterranean region, Africa, South America, the Middle East, Australia, and New Zealand — and is the most frequently encountered type of hydatid disease in humans. Theoretically, echinococcosis can involve any organ. The liver is the most common organ involved, followed by the lungs. These 2 organs account for 90% of cases of echinococcosis.\textsuperscript{1} Clinical presentation is often non-specific and may be asymptomatic. Approximately, 60% have right hypochondrial pain and 15% become jaundiced. Other features include skin rashes, pruritus and allergic reactions.

Diagnosis can be made by Complete Blood Count (CBC) which will detect eosinophilia in 30% of patients, plain abdominal x-ray which may show calcification in cyst wall while the cyst can also be imaged with
ultrasound or CT. It can be confirmed by indirect haemagglutinin assay. Aspiration should not be performed if hydatid disease is suspected as it is associated with risk of dissemination of infection or anaphylaxis.\textsuperscript{2,3}

Management in the form of pharmacological treatment is not curative but it is used as an adjunct to surgery to kill spilled scolices. The drugs of choice are albendazole, mebendazole and praziquantel. If surgery is required a laparotomy is performed to exclude other cysts.

Operative mortality is less than 2%. Complications include subphrenic abscess and prolonged cyst drainage.

**Case Report**

A 34 years old female presented with chest pain, cough and low grade fever. At the time of presentation she also had abdominal pain that had history of several years. She had history of resection of hydatid cysts from the abdomen 4 times in last 15 years. After resection of hydatid cyst for the fourth time she developed respiratory symptoms that turned out to be hydatid cysts in thorax and was referred to our center for further management. On examination she was vitally stable. CT abdomen was done that revealed widespread disease involving liver, kidney, spleen and pelvic structure. Therefore diagnosis of Hydatid disease was made and decision of thoracotomy and removal of hydatid cyst was taken.

Patient was placed in left lateral decubitus position and right posterolateral thoracotomy via 5th intercostal space was performed. Extrapleural hydatid cysts were located in costophrenic angle, posterior to diaphragm. More than 800 cysts were removed. Cysts covered with thick exocysts were partially removed. Rest of the space was washed with hypertonic saline. Lung and pleura were normal. Extrapleural catheter was placed for pain control. Chest was closed in layers. Specimen of hydatid cysts were sent for culture and sensitivity. Culture and Sensitivity revealed no microorganism, there were moderate pus cells seen. Significant numbers of β-hemolytic streptococcus group G were appreciated and treated accordingly post-operatively. Post-operative chest X-ray revealed right pleural effusion along with right chest basal atelectatic changes. Some subcutaneous emphysema was noted along the right lateral chest wall. Left lung was clear. Follow-up chest X-ray showed resolution of atelectatic changes on right side.

Marcaine was used as post-operative analgesia. Patient was sent to physiotherapy services for strengthening chest muscles. Post-perative course was uneventful.

**Discussion**

The diagnosis of hydatid disease in endemic areas is not very difficult to suspect. But the atypical sites involved by the disease may at times place hydatid disease down in the differentials as evidenced by case series published by Abu-eshy et al\textsuperscript{4}. Though lung is second most common site involved\textsuperscript{5} but extra-pulmonary hydatid disease is very rare that have been only scarcely reported in the literature\textsuperscript{6}. Since the diagnosis of abdominal hydatid disease had already been established in our patient, it was actually clinical features of chest that made the case worth presenting. Chest radiography is considered to be most valuable first line of imaging study as reported by Dogan et al.\textsuperscript{7} Since our patient was having recurrent abdominal hydatid disease therefore we opted for CT scan as imaging modality to determine the extent of abdominal and/or chest disease. Furthermore CT scan also helps to define the anatomy of disease. Since thoracotomy offers adequate simultaneous access to both the chest and hepatic lesions with acceptable morbidity and mortality, capitionnage provides no advantage in operations for pulmonary hydatid cysts as reported by Torna et al.\textsuperscript{8} Therefore we performed standard thoracotomy in our patient. To the best of our knowledge there is no case of hydatid disease in costophrenic angle posterior to diaphragm reported yet. Though operative morbidity and mortality in hydatid disease is 0-13% and 0-5% respectively\textsuperscript{9} and more clinical emphasis is on medical management of disease with Albendazole\textsuperscript{10}. But surgical approach combined with chemotherapy in recurrent hydatid disease especially involving more than one organ system has been the cornerstone of management though other effective protocols of management combining chemotherapy, percutaneous drainage and surgery need to be design. We presented the case of extrapulmonary hydatid disease in an unusual location and with recurrence that was indeed a medical and surgical challenge to manage.

**Conclusion**

Hydatid Disease is prevalent in many parts of the world. Though highly variable in presentation it typically involves the liver but can involve virtually any organ system. Both chemotherapy and surgical options are available for management of hydatid cysts disease. Albendazole is active against Echinococcus. Invasive...
options include percutaneous drainage along with scolicidal agents or more invasive but safer method is the surgical resection of cysts to avoid the rupture and consequent anaphylaxis.

References

Case Report
Torsion of Fallopian Tube, Fimbrial Cyst
Imrana Masroor, Nadir Khan,
Radiology Department, Aga Khan University Hospital, Karachi.

Abstract
A case of fallopian tube fimbrial cyst torsion with haemorrhage is presented, occurring in a 37 year old female who had tubal ligation 6 years back. She presented in emergency with acute abdomen. Initial assessment of ovarian cyst haemorrhage or torsion was made. Ultrasound showed cystic structures in left adnexa and complex cyst in right adnexa with suspicion of torsion. Laparoscopy was performed and bilateral fimbrial cysts in fallopian tubes were identified with torsion on right side, and a left ovarian haemorrhagic cyst, which was subsequently confirmed on histopathology. Although fallopian tube torsion of fimbrial cyst is rare, it should be considered in patients who had history of bilateral tubal ligation. Again it should also be considered in the differential diagnosis of acute abdomen in females.

Introduction
Isolated twisting of fallopian tubes is an uncommon event. The frequency is 1/1,500,000 women. Right fallopian tube is most commonly affected. The condition is frequently misdiagnosed with acute appendicitis or ovarian torsion. The torsion of fallopian tube and para-ovarian cyst is usually seen in reproductive age group. The age range is from 21-40 years. It is also rare in pregnancy, with only one case in 120,000 pregnancies being reported over a period of 10 years. The exact cause of fallopian tube torsion is unknown; however several etiologies have been postulated.

The signs and symptoms and physical findings mimic common diseases as mentioned above, therefore the diagnosis is never established before an invasive procedure like laparoscopy. Accurate and immediate diagnosis can lead to early intervention, avoid complications and may even save the organ.

Case Report
A 37 year old female presented in emergency department complaining of diffuse abdominal pain for 3 days, with maximum intensity in right iliac fossa. Pain was sudden in onset, initially mild to moderate which progressively became severe. It was associated with nausea, but no vomiting, bowel or urinary symptoms. Patient did not complain of any history of vaginal bleeding.

Patient's obstetric and gynaecological history included four live births and one miscarriage. Last delivery resulted in a lower segment caesarian section six years back during which patient had bilateral tubal ligation. Patient also suffered from menorrhagia and anaemia and was treated with blood transfusions and intravenous iron injections. Ultrasound examination for an episode of pelvic inflammatory disease 2 years back showed tubular structure in right adnexa about 5.1 x 2.3 cm consistent with hydrosalpinx. It was treated conservatively. Repeat ultrasound six months back was normal.

During this admission, vitals were within normal