Journal of Infection and Public Health (2014) 7, 233—236

http://www.elsevier.com/locate/jiph

SHORT REPORT

Low tension breast hydatid cyst—A case report

Maulana M. Ansari[a,*], **Shahla Haleem**[b], **Wasif M. Ali**[a], **Leonard J. Enzung**[a], **Sheikh S. Ali**[a], **Sunder K. Meet**[a]

[a] *Department of Surgery, J.N. Medical College and Hospital, A.M.U., Aligarh, UP 202002, India*
[b] *Department of Anaesthesiology, J.N. Medical College and Hospital, A.M.U., Aligarh, UP 202002, India*

Received 23 June 2013; received in revised form 12 January 2014; accepted 25 January 2014

KEYWORDS
Breast hydatid;
Hydatid cyst;
Echinococcus;
E. granulosus;
Albendazole;
Dead hydatid cyst

Summary
Introduction: Features of low tension in breast hydatid cyst and symptoms secondary to cyst dying and disintegration are unique and not yet reported in the literature.
Material and method: An young woman of 30 years complained about pain and vague swelling in the right breast during follow-up with albendazole therapy following second laparotomy for post-surgical residual cavity of hydatid cyst in the left lobe of the liver. Breast ultrasound was diagnostic.
Results: Segmental breast excision revealed a large dead hydatid cyst. Postoperative course was uneventful.
Conclusions: Breast hydatid cyst may become symptomatic and hypotensive after start of albendazole therapy.

Introduction

Breasts are a rare primary site of hydatid disease involvement and account for 0.27% of all cases [1]. In this study, we report an unusual case of a breast hydatid cyst that developed and became dead during medico-surgical treatment of a persistent symptomatic residual cavity in the liver following primary surgical treatment of the hydatid cyst.

Case report

A 30-year-old woman was under regular case following surgical treatment of a large hydatid cyst in the liver and was receiving 400 mg of albendazole twice daily. At four weeks, the patient complained of mild pain and a vague swelling in the upper outer quadrant of the right breast. On

* Corresponding author at: B-27 Silver Oak Avenue, Street No. 4 End, Dhorra Mafi, Aligarh, UP 202002, India.
Tel.: +91 571 2720044; mobile: +91 9557449212.
E-mail addresses: mma_amu@yahoo.com (M.M. Ansari), shahlahaleem@yahoo.co.in (S. Haleem), wasifali110@yahoo.com (W.M. Ali), lyo07ezngg@gmail.com (L.J. Enzung), drsheikhsarfrazali@yahoo.com (S.S. Ali), meetsk@rediff.co (S.K. Meet).

http://dx.doi.org/10.1016/j.jiph.2014.01.008

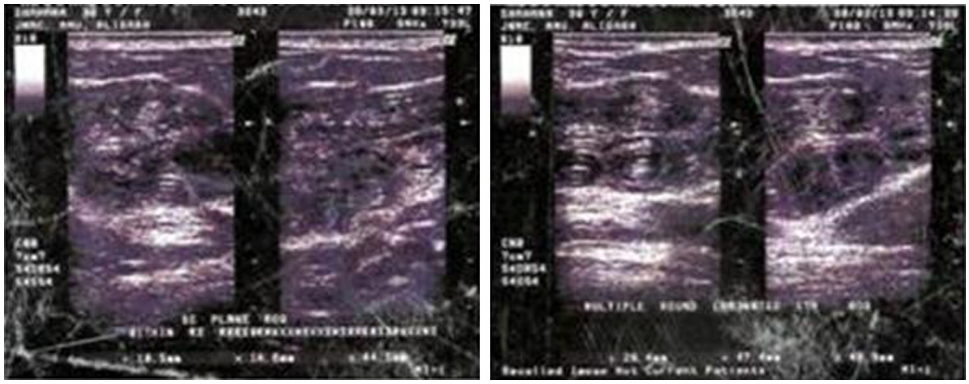

Figure 1 Breast ultrasound showing a large complex cyst containing multiple laminated structures diagnostic of a detached hydatid endocyst.

examination, there was a non-tender lumpy feeling in the upper outer quadrant of the right breast, suggestive of localized fibroadenosis (with a size of approximately 4 cm in diameter), and axillary lymph nodes were not palpable. Ultrasonography revealed a large complex cyst containing multiple laminated structures diagnostic of a hydatid cyst in the right breast (Fig. 1) and no enlarged lymph node in the axilla. Laboratory investigations exhibited a hemoglobin of 11.9 gm/dL, WBC count of 9900/cumm (N65, L29, E3, M3), absolute eosinophil count of 250/cumm, blood urea of 40 mg/dL, s. creatinine of 1.1 mg/dL, random blood sugar of 94 mg/dL, s. bilirubin of 1.0 mg/dL, SGOT/AST of 15.0 IU/L, SGPT/ALT of 12.0 IU/L, and s. alkaline phosphatase of 14.0 U/L. The patient's chest X-ray was clear, and an abdominal ultrasound did not reveal cysts inside the abdomen.

Wide excision of the breast tissue containing the cyst was performed under general anesthesia, and the wound was closed in layers while using a suction drain and after ensuring good hemostasis. Bisection of the specimen revealed dense fibrotic reaction around a dead thick-walled hydatid cyst without tension that measured approximately 8 cm × 6 cm (Fig. 2). The post-operative period was uneventful. The patient was discharged on the eighth day postop and was advised to continue albendazole for four weeks. Histopathological examination confirmed the dead hydatid cyst.

Discussion

The highest incidences of cystic echinococcosis (*Echinococcus granulosus*) have been reported in temperate regions, including North and South America, Australia, New Zealand, several Mediterranean countries, the southern and central parts of the former Soviet Union, Central Asia, Middle Eastern countries, China, and parts of Africa [2,3]. It is endemic in sheep-breeding countries, where it poses a serious health problem [4].

Breasts may rarely be a primary site or part of secondary disseminated hydatidosis [1]. Painless breast lumps are the typical presentation, and they most often affect women between 30 and 50 years of age. The cysts mimic a well-defined fibroadenoma, phylloid tumor, chronic abscess or sometimes even carcinoma [5]. In our patient, it mimicked an ill-defined localized fibroadenosis, possibly due to the low cyst tension secondary to degeneration. Albendazole therapy was determined to be effective because the breast hydatid cyst was found dead, disorganized and without tension. It is difficult to propose a plausible explanation for such an occurrence. One possibility is that the asymptomatic breast cyst was present *ab initio* and became symptomatic upon degeneration caused by the effects of albendazole therapy, as is evidenced by the presence of dense fibrotic reaction in breast tissue surrounding the cyst. The other possibility is that there was a fresh infestation during a period of drug default, as happened once in our patient for a several days after the second laparotomy, a fact our patient revealed during repeated cross-examinations.

The low tension in the breast cyst of our patient is intriguing. Tension within the cyst usually increases during the process of dying and disorganization. However, in our patient, the process paradoxically led to extra-cystic dense fibrotic reaction only, and the cyst tension remained low or lessened, resulting in the missed clinical diagnosis. Clinical assessment in our patient was fallacious in terms of the cyst size, as it measured much largerpost-surgically, possibly again a reflection of the low tension in the cyst, leading to indistinct margins on physical examination.