

Isolated Primary Echinococcosis of Breast: A Rare Case Report

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ABSTRACT

Isolated echinococcosis or hydatid cyst of breast is very rare disease especially in non-endemic areas. Even in endemic areas, hydatid cysts detects only for 0.27% of all cases of hydatidosis. Diagnosis of hydatid disease is difficult and it is diagnosed after surgical excision in majority cases. We report a case of 39 year old female with isolated hydatid cyst of the left breast that appeared as a painless breast lump without any specific symptoms.

Key words: breast, echinococcosis, cysts

INTRODUCTION

Echinococcosis (hydatid cyst, hydatidosis) is caused by invasion with the larval stage of *Echinococcus granulosus*. This helminthosis is globally distributed and is seen endemically particularly in sheep raising countries. Hydatidosis is common disease in endemic areas such as: the eastern part of the Mediterranean region, northern Africa, southern and eastern Europe, at the southern tip of South America, in Central Asia, Siberia and western China [1, 2]. The disease is often manifested by one or more hydatid cysts in the liver (75%) or lung (20%) and is rarely encountered in other body organs like muscle, spleen, brain, bone, thyroid gland, breast and pancreas [2,3]. Breast hydatidosis is rare disease and comprise in 0.27% of all cases of hydatid cysts [2, 4]. Diagnostic of mammary echinococcosis is often difficult because of the absence of specific disease manifestations and the fact that clinical features resemble other breast pathological conditions. In this regard, we present a case of primary isolated echinococcosis of breast in patient from non-endemic region.

CASE REPORT

A 39 year old female was hospitalized to the surgical department of Kiev municipal clinical oncological centre with complaints of painless lump in her left breast. She first noticed the breast lump approximately 2 months ago, but did not to seek medical help because believed that seeking medical care was unnecessary. She had no history of family breast cancer, nipple discharge, injury to the breast, fever, drug misuse, hormone replacement therapy or history of close contact with any animal. Physical examination revealed a painless soft-to-firm mobile mass 1.5 x 1.0 cm with regular borders, located in the upper outer quadrant of the left breast. The right breast, nipples, areolas and skin were normal. There were no palpable axillary lymph nodes. The chest X-ray view, ultrasonography (US) of whole abdomen, hematological and blood biochemistry investigations did not reveal any abnormality. Preoperative mammography and US showed a oval, circumscribed hypoechoic mass with a thin imperceptible wall and single thin septation in the upper outer quadrant of the left breast (Figure 1). In order to exclude a breast cancer fine-needle aspiration (FNA) biopsy was recommended, but the patient refused this procedure.

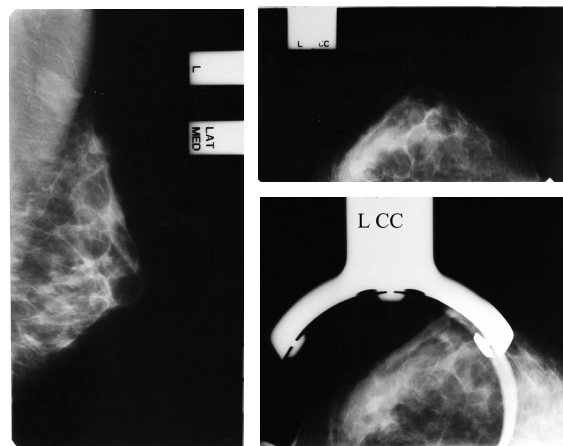


Figure 1. Mammograms show a circumscribed lesion in the upper outer quadrant of the left breast

The area of the lesion was totally surgically excised by a mammary left upper outer quadrant sectorectomy. Intraoperatively, well-circumscribed whitish mammary cyst 13 x 7 mm, filled with a transparent gelatinous substance (Figure 2) was detected.

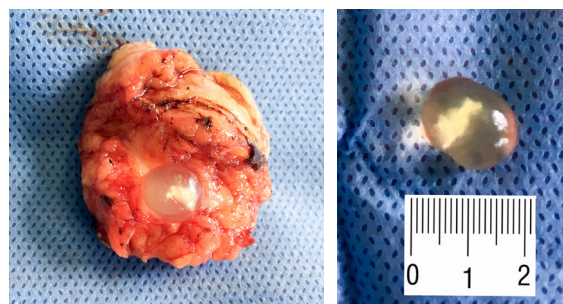


Figure 2. Hydatid cyst excised from the left breast

DISCUSSION

Hydatid cyst of the breast is generally detected in women between 30 and 50 years old [5, 6]. Diagnosis of hydatid disease is difficult. The routine serological tests can be useful, but they cannot confirm hydatidosis; thus US, MRI and CT should be used for diagnosis of this disease [7]. The applying of fine needle aspiration biopsy is controversial at present, because results of cytology are not conclusive and this procedure may

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lead to the secondary cysts growth due to spillage of hydatid fluid [8]. Surgery remains the most valid method of treatment for human hydatidosis. The recurrence after incomplete removal or unidentified cyst is 2 - 25%. For these patients albendazole treatment must be recommended to reduce the incidence of echinococcosis recurrence [9].

CONCLUSION

In conclusion, it should be remembered that hydatid cyst in the breast is very rare and unusual location for echinococcosis. Suspicion of hydatidosis should be considered in the differential diagnosis in the evaluation of breast cystic lesion even in non-endemic areas.

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Conflict of Interest

We declare no conflicts of interest.

Competing Interests

The authors declare no competing financial interest. A written consent for publication was obtained from the patient.

REFERENCES

- 1 Deplazes P, Rinaldi L, Alvarez Rojas CA, et al. Global Distribution of Alveolar and Cystic Echinococcosis. *Adv Parasitol.* 2017;95:315–493. doi: 10.1016/bs.apar.2016.11.001.
- 2 Karataş T, Kanlıöz M, Akin M. Breast hydatid cyst mimicking fibroadenoma and malignancy: A case report. *Turkish Journal of Surgery/Ulus Cerrahi Derg.* 2013;29(3):144-6. doi:10.5152/UCD.2013.2140.
- 3 Sachar S, Goyal S, Goyal S, et al. Uncommon locations and presentations of hydatid cyst. *Ann Med Health Sci Res.* 2014;4(3):447–52. doi: 10.4103/2141-9248.133476
- 4 Uncu H, Ereku S. Hydatid cyst of the breast. *Acta Chirg Belg.* 2007;107(5):570–1. PMID: 18074924
- 5 Masroor I, Azeemuddin M, Khan S, et al. Hydatid disease of the breast. *Singapore Med J.* 2010;51(4):72–5. PMID: 20505900
- 6 Tukul S, Erden I, Ciftci E, et al. Hydatid cyst of the breast: MR imaging findings. *AJR Am J Roentgenol.* 1997;168:1386–7.
- 7 Karlo CA, Stolzmann P, Do RK, et al. Computed tomography of the spleen: how to interpret the hypodense lesion. *Insights Imaging.* 2013;4(1):65–76. doi: 10.1007/s13244-012-0202-z
- 8 Moazeni-Bistgani M. Isolated hydatid cyst of the breast that developed after breast feeding. *J Surg Case Rep.* 2016;5:1-3. doi: 10.1093/jscr/rjw071
- 9 Yaqoob N, Kayani N, Shamim MS. Mammary echinococcosis: two cases and literature review. *J Pak Med Assoc.* 2004;54(5):283-4. PMID: 15270193