

ISOLATED PRIMARY HYDATID CYST OF THE BREAST: CASE REPORT

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PRİMER İZOLE MEME KİST HİDATİĐİ: OLGU SUNUMU

ÖZET

Kist hidatik hastalığının etkeni *Echinococcus granulosus*'dur. Kist hidatik genellikle karaciğer ve akciğerde yerleşirken, memede ise çok nadiren görülür. Çalışmamızda; 62 yaşında bir kadın hastada izole sol memede kist hidatik olgusu sunuldu. Hastanın sol memesinde 1 yıldır ağrısız kitle şikayeti mevcuttu. Görüntüleme yöntemlerinde düzgün sınırlı, mobil bir lezyon olarak tarif edildi. Lokal anestezi altında kitle total çıkartıldı. Patolojik inceleme sonucunda kist hidatik tanısı konuldu. Hastaya 3 aylık mebendazol tedavisi verildi. Takip sırasında nüks hastalık saptanmadı.

Anahtar sözcükler: meme, primer, kist hidatik

ABSTRACT

The causative agent of hydatid cyst disease is *Echinococcus granulosus*. Hydatid cysts are usually located in the liver and the lungs; they are very rarely seen in the breasts. Herein, a 62-year-old woman with isolated left breast hydatid cysts is presented. The patient had the complaint of painless mass in the left breast for one year. Imaging methods revealed a mobile lesion with smooth margins. Under local anesthesia, the mass was totally removed. Pathological examination made the diagnosis of hydatid cyst. The patient received mebendazole treatment for 3 months. During follow-up visits, no recurrence was found.

Key words: breast, primary, hydatid cyst.

H ydatid cyst disease is a parasitosis generating an important health problem in the countries worldwide where animal husbandry is common. The causative agent is *Echinococcus granulosus*. It is a zoonosis caused by larval form of the parasite, for which humans are intermediate hosts. It often invades the liver (75%) and lungs (15%). It occurs in the rest of the body less frequently (10%) (1). Isolated breast involvement is very rare. Hydatid cyst of the breast accounts for 0.27% of all cases. It is often diagnosed during routine breast imaging since it is usually asymptomatic (2). Herein, a patient with primary isolated hydatid cyst of the breast is presented.

Case report

A 62-year-old woman came to our clinic because of the complaint of a painless mass in the left breast for 1 year. In her medical history, she was living in a rural town and her occupation was livestock breeding. A firm, mobile mass approximately 3x3 cm in size with smooth margins was palpated in the upper outer quadrant of the left breast. There was no axillary lymphadenopathy. The rest of physical examination was normal. Breast ultrasonography (USG) revealed a lesion in the upper outer quadrant of the left breast which sized 28x32 mm, was divided by thin septa and assumed primarily as semisolid in character. Mammography showed a lesion in the upper outer quadrant of the left breast 28x31 mm in size with smooth margins which was oval-shaped and included thin, radiopaque septa containing calcifications (Figure 1). Breast



Figure 1. Mammography showed oval-shaped and included radiopaque septa containing calcifications.

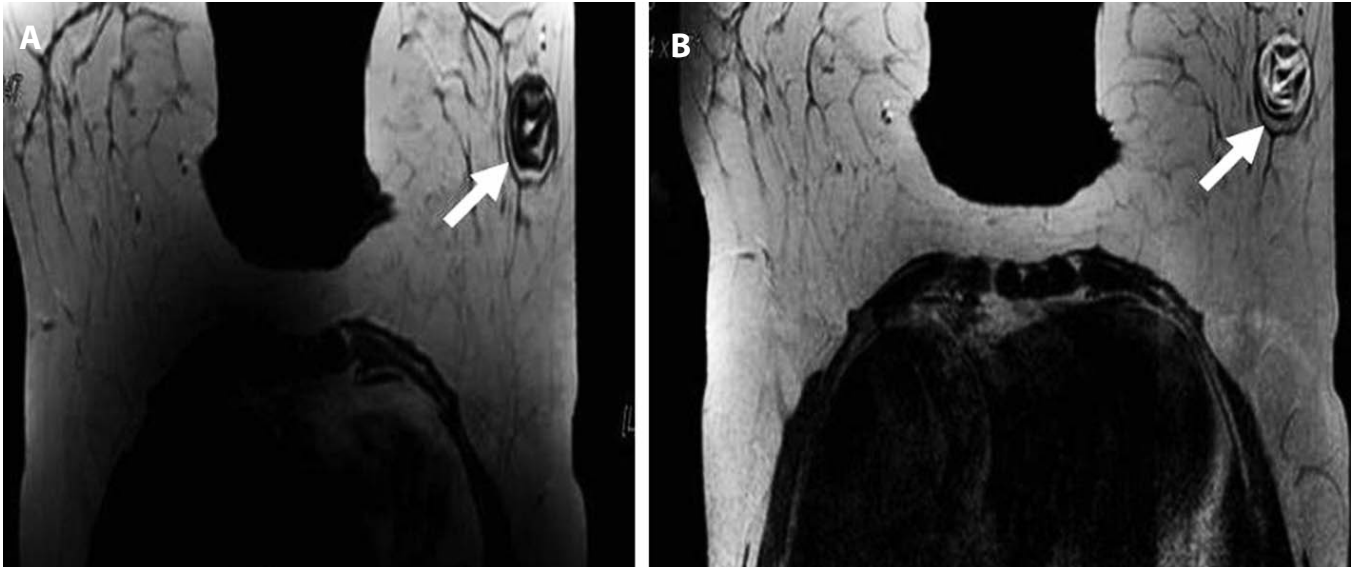


Figure 2. Magnetic resonance imaging indicated membranous structures hypointense in T1A-weighted sequence (A), hyperintense in T2A-weighted images (B) and the foci that appeared hypointense in both sequences and were consistent with calcification.

magnetic resonance imaging (MRI) showed a lesion 31x30 mm in size which was located in the upper outer quadrant of the left breast, included membranous structures hypointense in T1A-weighted sequence, hyperintense in T2A-weighted images and the foci that appeared hypointense in both sequences and were consistent with calcification; that lesion was assumed primarily as hydatid cyst (Figure 2). Abdominal and thorax tomograms did not show any other organ involvement. Hemogram, biochemical parameters and tumor markers were within reference ranges. Indirect hemagglutination (IHA) test was negative. The patient was given mebendazole with the presumed diagnosis of hydatid cyst of the breast. After a two-week course of medical treatment, the mass was totally excised from the left breast under local anesthesia. Daughter vesicles and hydatid fluid were seen with the incision of the mass. Histopathologic examination confirmed hydatid cyst. The patient was discharged on the postoperative day 2 without any problem. Mebendazole treatment was continued for three months. Breast USG control after three months did not show any recurrence.

Discussion

Hydatid cyst is a disease involving all tissues of the body. Its incidence is high where animal husbandry is common and among people who are in contact with animals. Hydatid cyst of the breast usually occurs primarily via hematogenous spread. It was reported that a majority of secondary cysts occurred due to the rupture of the cyst in the liver. Hydatid cyst of the breast is seen in women aged between 30-50 years (3,4). There is no specific finding of physical examination. The lesions are palpated as firm, painless, mobile masses with smooth margins. The diagnosis of hydatid cyst is made by anamnesis, physical examination, imaging studies and serological tests (5). Our patient was a 62-year old woman and living in rural area. On physical examination, a painless mobile

mass with smooth margins was palpated in the upper outer quadrant of the left breast. Hydatid cyst was limited only within the breast and no other focus was determined on the screening.

An increase in the number of peripheral blood eosinophils occurs in approximately 25-50 % of the patients with hydatid cyst (6). Serology is an important tool in the diagnosis of hydatid cyst. IHA test positivity is over 80% for liver cysts but the false negativity of the test can be high for locations outside the liver (7). The patient presented here did not have eosinophilia and the IHA test was negative. On USG, hydatid cyst of the breast is seen as a well-defined, lobulated, mixt echoic lesion that may contain multiple cystic and solid areas. On mammography, ring-shaped structures within the mass, daughter vesicles inside hydatid cyst filled with fluid and different densities on the cyst wall are seen. On MRI, it is identified as a well-defined cystic lesion showing enhanced capsular contrast uptake. Since MRI findings are indistinguishable from those of breast abscess, the differential diagnosis should be based on anamnesis and physical examination findings (8). We presumed hydatid cyst because of the painless mobile mass with thick wall, absence of fever, her history of living in rural area along with imaging studies.

The diagnosis of hydatid cyst can be made by aspiration biopsy method. However, total excision of the mass is recommended since aspiration procedure may cause to secondary cyst development and anaphylactic reaction. It has been reported that pre- and post-operative treatment with mebendazole reduces the risk of recurrence (2). Our patient had total surgical excision of the mass performed, due to the preoperative presumed diagnosis of hydatid cyst without obtaining aspiration biopsy. She began to receive mebendazole treatment 2 weeks prior to the surgery and the treatment was continued throughout 3 months in the post-operative period.

In conclusion, it should be remembered that hydatid cyst may occur in many different anatomic locations other than liver, since the disease is endemic in our country. Hydatid cyst should always be considered in the differential diagnosis of painless cystic masses of the breast which grow slowly and do not display abscess signs.

Conflict of Interest

The authors have no conflicts of interest or competing financial interests with regards to this manuscript.

References

1. Gedik E, Girgin S, Akay HÖ, Korkmaz Ö. Primer Hydatid Cyst In Paravertebral Muscle. Eur J Gen Med 2007;4:143–146.
2. Uncu H, Ereku S. Hydatid Cyst of the Breast. Acta chir belg 2007;107:570-571. (PMID: 18074924)
3. Masroor I, Azeemuddin M, Khan S, Barakzai A. Hydatid disease of the breast. Singapore Med J 2010;51:72–75. (PMID: 20505900)
4. Tukul S, Erden I, Ciftci E, Kocak S. Hydatid cyst of the breast: MR imaging findings. AJR Am J Raentgenol 1997;168:1386–1387. (PMID: 9129460)
5. Yaghan RJ. Hydatid Disease OfThe Breast: A Case Report And Literature Review. Am. J. Trop. Med. Hyg 1999;61:714–715. (PMID: 10586899)
6. Rai LCSP, Panda BBN, Ganguly CD, Bharadwaj LCR. Pulmonary Hydatid: Diagnosis and Response to Hypertonic Saline Irrigation and Albendazole. MJAFI 2005; 61:9-12.
7. Dirican A, Unal B, Kayaalp C, Kirimlioglu V. Subcutaneous hydatid cysts occurring in the palm and thigh: two case reports. J Med Case Reports 2008;2: 273. (PMID: 18700983)
8. Tutar N, Çakır B, Geyik E, Tarhan NC, Niron EA. Hydatid cysts in breast: mammography and ultrasound findings. The British Journal of Radiology 2006;79:114–116. (PMID: 16980663)

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