ejpmr, 2021,8(6), 508-511

SJIF Impact Factor 6.222

EUROPEAN JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.ejpmr.com

Case Study

ISSN 2394-3211

EJPMR

HYDATID CYST OF BREAST: A RARE PRESENTATION

Dr. Mukesh Kumar[1], Dr. Puneet Mahajan[2], Dr. V. K. Sharma[3] and Dr. Ankit Panwar*[4]

[1]MS General Surgery, Medical Officer, Regional Hospital Bilaspur (HP).
[2]Professor, Department of General Surgery, IGMC Shimla (HP).
[3]Associate Professor, Department of General Surgery, IGMC Shimla (HP).
[4]MS General Surgery, Medical Officer, Civil Hospital Rajgarh (HP).

***Corresponding Author: Dr. Ankit Panwar**

MS General Surgery, Medical Officer, Civil Hospital Rajgarh (HP).

Article Received on 13/04/2021 **Article Revised on 04/05/2021** **Article Accepted on 25/05/2021**

ABSTRACT

Hydatid disease is one of the most geographically widespread zoonoses with substantial disease burden. Hydatid disease of breast is extremely rare. When such presentation comes across, it poses diagnostic dilemma. In this report we are discussing a rare presentation of a 40 years old female who presented with complains of breast lump for 3 years and was diagnosed as hydatid disease of breast. Hydatid cyst should be included in differential diagnosis of breast lumps for patients living in endemic areas.

INTRODUCTION

Hydatid disease is a parasitic infection caused by larval form of Echinococcus granulosus. It is encountered endemically in sheep breeding communities. Human are occasional intermediate hosts of this organism. The oncospheres, which are ingested, penetrate the intestinal mucosa, enter the blood stream and develop into hydatid cysts. 70% of the cysts are detected in the liver, 20% in the lung, and the rest in other organs.[1] The breast is rare site of hydatid cyst that accounts for only 0.27% of all cases.[2] Very few cases of hydatid cysts of the breast have been reported in the literature. Patients usually present to the hospital with a palpable and painless lump in the breast. It is challenging to differentiate it from other tumoral lesions of the breast.Very few of the reported cases have been diagnosed preoperatively.[3] It is not possible to reach definitive diagnosis with only radiological investigations.

CASE REPORT

A 70 year old woman from Shimla district of Himachal Pradesh presented with complaint of awareness of lump in the right breast. She stated that initially the lump was of size approx 1 x 1 cm which slowly progressed to size of 5 x 5 cm over a period of 3 years. The lump was painless. There was no history of nipple discharge. There was no history of any trauma, fever or drug misuse. She had no history of breast cancer in family. There was no history of chest or abdominal complaints. She was a housewife with history of working in the fields, having close contact with animals.

On clinical examination, a single lump of size 6 x 5 cm was present in the upper quadrant of left breast extending behind nipple areolar complex. It was non tender, mobile with well defined margins, firm to hard in consistency with no evidence of fixation to chest wall and skin. Nipple areola complex was normal. Right breast examination was normal. There was no axillary or supraclavicular lymphadenopathy. There was no mass in abdomen. Rest of the systemic examination was within normal limits.

Ultrasonography of bilateral breast and axilla was performed (fig 1). It revealed an oval cystic lesion of size 4.9 x 2.8 cm in retroareolar position of left breast. There were no internal septations, calcifications or mural nodule. Right breast was normal. Bilateral axillae were normal. USG abdomen was done (fig 2). It revealed a heterogenous hypoechoic lesion with undulating membranes seen in right lobe of liver.

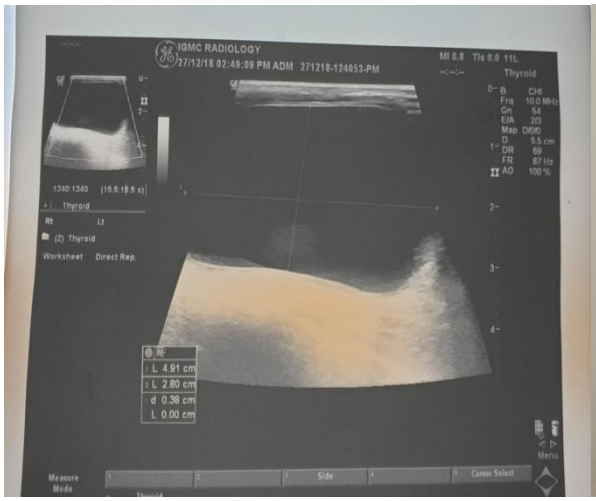

Fig. 1: Ultrasound of left breast.

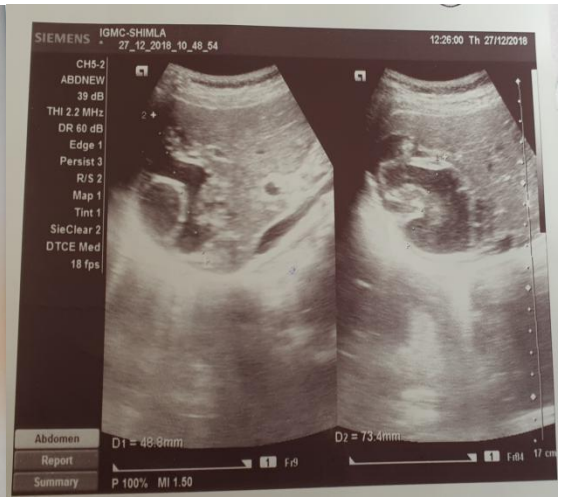

Fig. 2: Ultrasound abdomen.

Patient was admitted and routine blood investigations were performed which were within normal limits. Hydatid serology was positive. Chest x-ray was within normal limits. Mammography (fig 3) revealed high density well defined rounded lesion of size 6.2 x 5.8 cm in the upper quadrant of left breast : BIRADS II. CECT Abdomen (fig 4) revealed well defined round hypodense lesion of 6.2 x 6.8 cm in segment 8 of liver with CT value of 35-55 HU with fine septae within it, suggestive of hydatid cyst Gharbi stage 5.

Operation: External drainage of liver hydatid cyst with excision of hydatid cyst of left breast was performed. Cyst of size 5 x 4 cm was present in left breast which was excised in toto (fig 5-8). The resultant cavities were irrigated with 0.5% cetrimide and saline before its primary closure.

During operation or later, no anaphylactic reaction at any moment was seen. Patient was discharged on 6th post-oprative day and was started on oral albendazole.

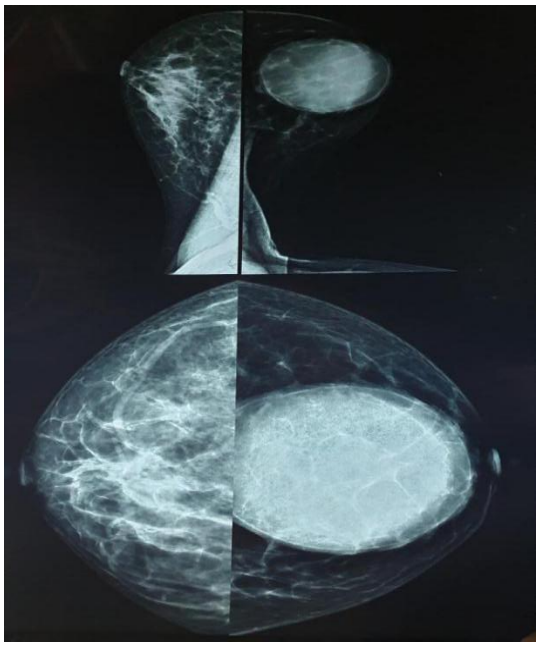

Fig. 3: Mammography showing lesion in left breast.

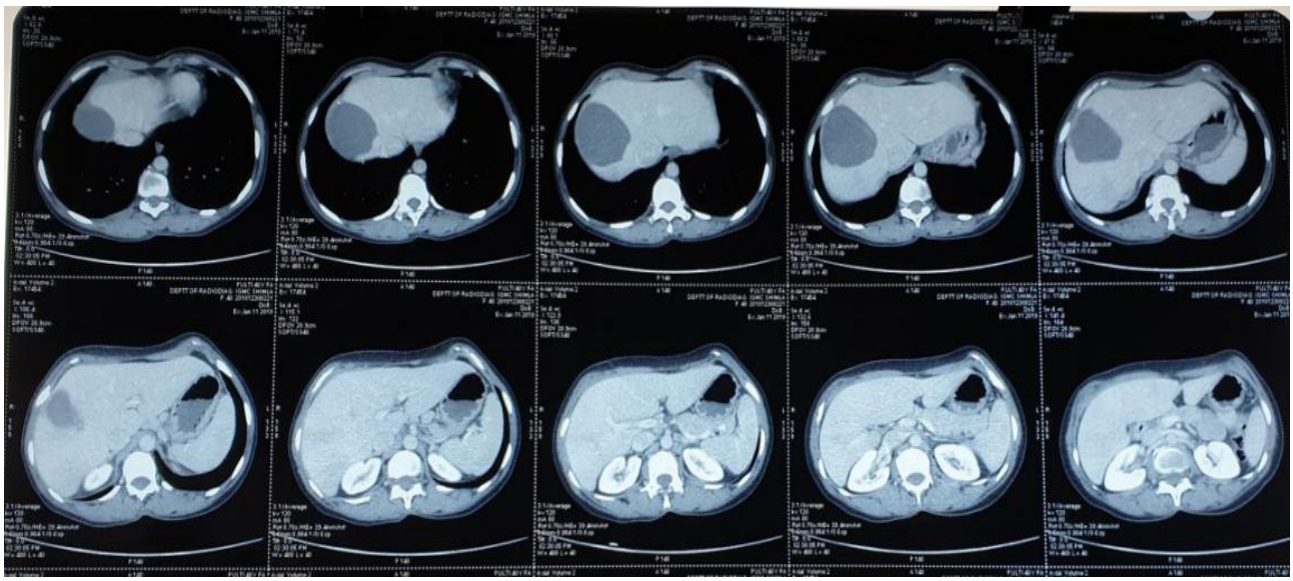

Fig. 4: CECT abdomen showing cystic lesion on segment 8 of liver.

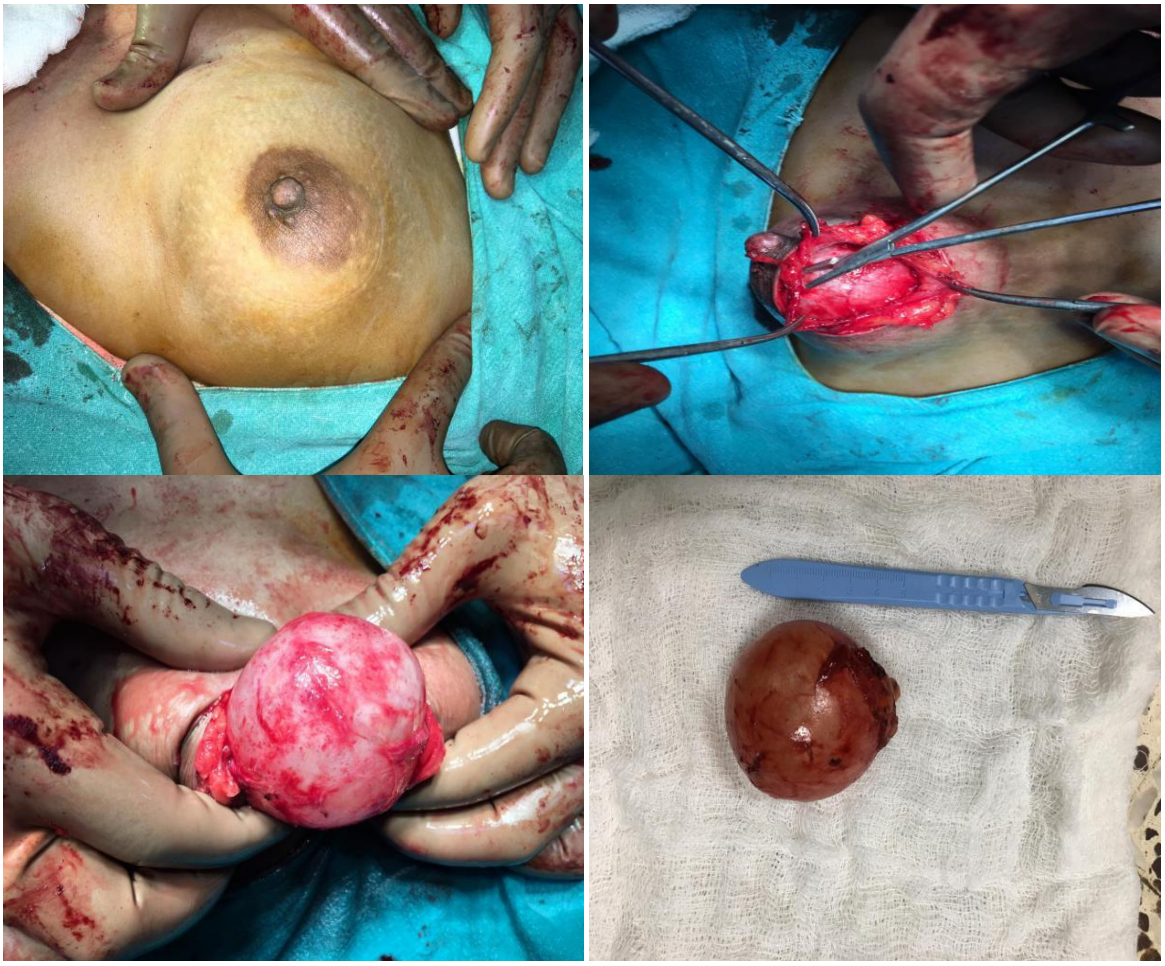

Fig. 5-8: Intra-operative images.

DISCUSSION

Hydatid disease is a cyclozoonosis caused by the larval (metacestode) stages of cestodes (flat worms) belonging to the genus Echinococcus and the family Taeniidae. It is endemic in the cattle and sheep rearing areas particularly Australia, New-Zealand, Middle East, India, Africa, South America and Turkey. It is commonly caused by Echinococcus granulosus, but E. multilocularis and E. oligarthus also infect man. The disease exists in two forms: the larval stage (metacestode) and the adult stage (tenia). Carnivores (dogs and wild canine) act as definitive hosts and herbivores most commonly sheep act as intermediate hosts.[4] Humans are the accidental intermediate host (dead end). The adult worm of the parasite lives in the proximal small bowel of the definitive host attached by hooklets to the mucosa. The adult worm, produces eggs that are passed in stool. Eggs ingested by intermediate hosts like cows, sheep, and humans, liberate an embryo in the duodenum, which penetrates intestinal mucosa and enters the portal circulation.[5] The liver acts as a first filter and stops about 70%, while lungs, the second filter, stop about 20% and only 10% embryos are free to develop cysts in other organs of the body like heart and pericardium, bone, spleen, muscle and brain.[6] Hydatid disease of breast is extremely rare and accounts for only 0.27% of all cases.. Breast can be the only site (primary site) or part of disseminated hydatidosis. It generally affect woman of 30-50 years of age, although wider age range (26-74) has been reported. Typically, the patient presents with painless breast lump, which increases slowly in size without regional lymph node involvement. It might mimic fibroadenoma, phyllodes tumors, chronic abscesses, or even carcinoma. So breast hydatid cyst should be included in differential diagnosis of breast lumps especially in endemic areas.[6,7] Cysts present at unusual sites create serious diagnostic problems. In fine needle aspiration cytology (FNAC) hooklets or laminated membrane can be seen but most of the times it is inconclusive.[8] The disease can be diagnosed by radiologic or serologic means, but both of these are also not definitive. Ultrasound appearance of breast hydatid cyst is the same as that seen in other organs showing a well-defined loculated mass of heterogenous echogenicity that may contain multiple cystic areas.[9] Mammogram may show a circumscribed mass, the characteristic ring shaped structures inside the mass in over penetrated view strongly suggests breast hydatid cyst.[10] Magnetic Resonance Imaging is also helpful.[6,11] Immunoblot and ELISA are 80-100% sensitive for liver cysts but only 50-56% sensitive and 25-56% specific for other sites.[12] Most of the times the diagnosis is classically made at time of surgery by direct

demonstration of parasite elements in surgical specimen.[13]

The treatment of a hydatid cyst of the breast is complete excision. However, recurrent cysts have been reported postoperatively in 10% of patients. Albendazole may decrease the recurrence rate of hydatid cyst disease.[14]

CONCLUSION

Hydatid cyst of breast is extremely rare. Hydatid cysts present at unusual sites like breast create diagnostic problems. Most of the times the diagnosis is made at the time of surgery by direct demonstration of parasite elements in surgical specimen. In endemic areas, in patients presenting with breast lump, differential diagnosis of hydatid cyst should always be kept in mind because preoperative diagnosis of disease provides an opportunity of better management.

REFERENCES

1. Demirci S, Eraslan S, Anadol E, Bozalti L. Comparison of the results of different surgical techniques in the management of hydatid cyst of the liver. World J Surg, 1989; 13: 88-91.
2. Abi F, Fares F, Khasis D, Bouzidi A. Unusual localisation of hydatid cysts. A proposes of 40 cases. J Chir., 1989; 26: 307-312.
3. Ali A, Aldhilan A, Makanjuola D, Abdulmohsen A. Preoperative diagnosis of hydatid cyst of the breast: a case report. Pan Afr Med J., 2013; 14: 99.
4. Josef EF. Echinococcal cyst-open approach. In: Milicevic Miroslav, editor. Fischer's mastery of surgery, 1, 6th ed. New Delhi: Lipincott Williams & Wilkins, Wolters Kluwer Health, 2012; 1189.
5. Garcia G, Shimizu R, Bruckner D. Sinus tract extension of liver hydatid cyst and recovery of diagnostic hooklets in sputum. Am J Clin Pathol, 1986; 85: 519–21.
6. Das DK, Choudhury U. An unusual breast lump. JIMA, 2002; 100(5): 327–8.
7. Farrokh D. Hydatid cysts of the breast: a report of three cases. Irn J Med Sci, 2000; 25(1&2): 72–5.
8. Sagin HB, Kiroglu Y, Aksoy F. Hydatid cyst of breast diagnosed by fine needle aspiration biopsy; a case report. Acta Cytol, 1994; 38: 965-967.
9. Masci J. Echinococcosis. St Louis: Mosby In F Ferri (ed.), clinical advisor: instant diagnosis and treatment, 2001; 231-232.
10. Vega A, Ortega E, Cavada A, Garjo F. Hydatid cyst of the breast: mammographic findings. Am J Roentgenol, 1994; 162: 825–6.
11. Tukel S, Erden I, Kocak SM, Ciftci E. Hydatid cyst of breast: MR imaging findings. Am J Roentgenol 1997; 168: 1386–7.
12. Kurul S, Tenekeci N, Topuzlu C. Case report: an unusual mass in the breast; the hydatid cyst. Clin radiol, 1995; 50: 869-870.
13. Mirdha BR, Biswas A. Echinococcosis: presenting as palpable lumps of breast. Indian J Chest Dis Allied Sci., 2001; 43: 241.
14. Ouedrago EG. Hydatid cyst of the breast: 20 cases. J Gynecol Obstet Biol Reprod, 1986; 15: 187–94.