

CASE REPORT

HYDATID CYST PRESENTING AS A BREAST LUMP

Shatrughan P Sah¹, Chandra Shekhar Agrawal², Imranur Rahman Khan¹ and Sudha Rani¹

Departments of ¹Pathology and ²Surgery, BP Koirala Institute of Health Sciences, Dharan, Nepal

Abstract. We report a 33-year-old woman who presented with a breast lump which, on pathological examination, was found to be a hydatid cyst. There was no evidence of any coexistent lesion elsewhere. To our knowledge, this represents the first case of hydatid disease of the breast reported from Nepal.

Parasitic infection of the breast is uncommon and usually due to a larval form of filarial worm and *Taenia solium*. Cystic hydatid disease of the breast is rare (Abi *et al*, 1989) and can be difficult to differentiate from other benign breast lesions. A search of literature for prevalence of hydatid cyst of breast revealed 14 case reports and a single series of 20 cases (Quedraogo, 1986). We report here the first case of hydatid disease of breast from Nepal.

A 33-year-old Nepali woman presented with gradually progressive, painless lump in the left breast of one year duration. She did not give any history of injury or discharge from the nipple and there was no family history of breast cancer. She was a housewife. Although, there was no pet dog in the family, a history of keeping goats in the house was present. Examination revealed a slightly mobile, firm lump measuring 3.5x2.5 cm in the upper outer quadrant of the left breast. The right breast and both nipples were normal and there was no axillary or cervical lymphadenopathy. The chest x-ray and abdominal ultrasonography were normal. All other investigations were within normal limit. Fine needle aspiration (FNA) of the lump yielded 2 ml of clear acellular fluid.

An excisional biopsy of the lump measured 4x3.5x3 cm and consisted of fibrofatty tissue. Cut section revealed an unilocular cyst measuring 3 cm in diameter with a semitranslucent, shiny inner surface. Microscopically, the cyst wall was made of compressed breast tissue infiltrated by lymphocytes and eosinophils (Fig 1). Within the lumen

were seen laminated membrane, germinal layer and protoscolices characteristic of *Echinococcus granulosus* (Fig 2).

She was discharged on the third postoperative day. No medical treatment was advised. She was followed up for eight months and was asymptomatic.

Hydatid cyst or echinococcosis is a parasitic disease caused by larval cestode (tapeworm) of genus *Echinococcus*. *E. granulosus* (cystic echinococcosis) is the most common species, but *E. multilocularis* (alveolar echinococcosis) and *E. vogeli* (polycystic echinococcosis) also infect humans. The greatest prevalence of cystic echinococcosis is in temperate countries, including southern South America, Mediterranean countries, the southern and central parts of the former Soviet Union, central Asia, China, Australia, and parts of Africa. The definitive host includes many species of carnivores, the most important being the dog. Globally, sheep are the most important intermediate hosts, but humans are also infected by consuming the ova of the parasite.

Hydatid cysts are usually found in the liver and lungs, but they can develop anywhere in the body and have been reported in spleen, kidney, muscles, bones, brain and retroperitoneum (Fisser, 1998). Hydatid cyst of the breast is rare and only few cases having been reported in the literature (Bengisun *et al*, 1993). The only series of hydatid cysts of the breast is a report of 20 cases in the French literature (Quedraogo, 1986). Mammography and ultrasonography are keys to reach the diagnosis, unfortunately this could not be done in our patient. Mammography may reveal an opacity with calcification which must be differentiated from a calcified fibroadenoma (Radhi and Thavanathan, 1990). The role of fine needle aspiration biopsy (FNAB) in diagnosis of echinococcosis is well

Correspondence: Dr Shatrughan P Sah, Department of Pathology, BP Koirala Institute of Health Sciences, Dharan, Nepal.
Fax: 977-25-20251; E-mail: sp_sah@hotmail.com

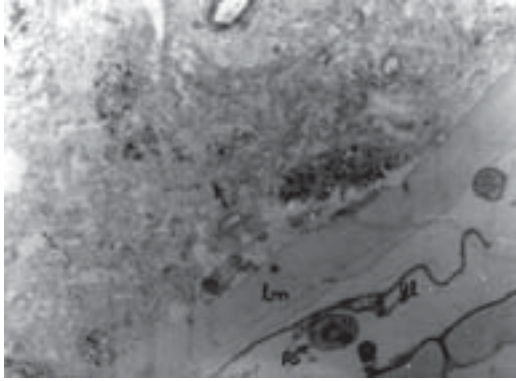


Fig 1—Section showing compressed breast tissue (↑) and hydatid cyst with laminated membrane (lm), germinal layer (gl) and protoscolices (ps) (H&E, x40).

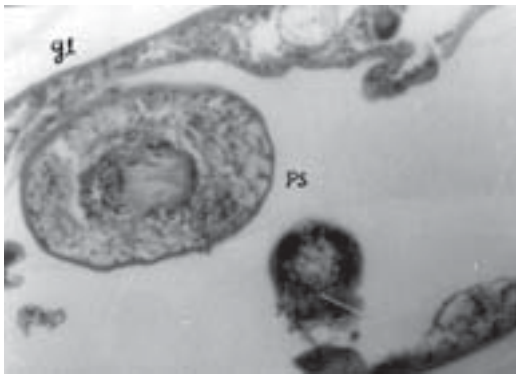


Fig 2—Higher magnification of germinal layer (gl) and protoscolices (ps) (H&E, x400).

documented (Kapila and Verma, 1990) but in our case cytology of aspirated fluid did not reveal the parasite. Negative cytology has been reported by others also (Radhi and Thavanathan, 1990).

There are stray reports of hydatid cysts of the breast from the Indian subcontinent (Gupta *et al*, 1994; Vasenwala, 1996). From Nepal there is no previous report of involvement of breast due to

E. granulosus. However, there is a single epidemiological survey report on the prevalence of human echinococcosis (Joshi, 1985). Presence of an unilocular cyst, no infiltration into the surrounding breast tissue and presence of characteristic protoscolices confirmed the diagnosis of *E. granulosus* in our patient. Although hydatid cyst of the breast is rare, it should be considered in the differential diagnosis of lesions of the breast in endemic regions.

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