“Gigantic primary hydatid cyst of spleen: Case Report”

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Abstract:
Although no organ in human body is immune to infection with Dog tapeworm, Echinococcus granulosis, the causative organism for Hydatid disease, organ involvement like spleen, thyroid and breast is rare. Presenting in these organs as primary disease and involving organ with huge enlargement is quite uncommon. We present a case history of 60 year old female patient with rural background presenting with lump abdomen since 50 years which was diagnosed as primary Splenic hydatid cyst that virtually occupied whole abdominal cavity. Patient was treated successfully by exploratory laparotomy with deroofing of cyst and evacuation about 10 liters of hydatid fluid.

Key words: Hydatid cyst, Splenic Hydatid Disease.

Background:
Among the helminthic infections of human beings, hydatid disease is known since centuries and is a global disease. In endemic areas it is seen mainly in areas where animal husbandry is common [1], but because of urbanization and emigration it is seen in developed world also. Splenic hydatid disease [SHD] is extremely rare even in endemic areas (0.5% to 3% of all cases. [2, 3, 4]. Primary Splenic involvement of abdominal viscera is extremely low [5].

Case report:
A 60 year old woman with rural background presented with pain abdomen following minor accident. On examination there was mild abdominal tenderness without rigidity. Abdomen was hugely distended and on palpation there was a lump felt virtually occupying whole abdomen with restricted mobility. Routine investigations and liver function test were normal. Plain X ray abdomen revealed soft tissue opacity in left hypochondrion with marginal calcification and stag horn calculus in left kidney. Sonography abdomen showed large heterogeneous mass with multiple cystic areas seen in upper abdomen with compression effect over surrounding structures.

Abdominal Contrast Enhanced Computed Tomography (CECT) revealed huge well defined fluid attenuation cystic lesion of size 24 cms by 19 cms by 23 cms with internal daughter cysts and peripheral wall calcification in spleen with only thin rim of Splenic parenchyma suggestive of hydatid cyst (Fig.1). There was mass effect on all the abdominal organs along with moderate free fluid in abdomen and stag horn calculus in left kidney and cholelithiasis. Enzyme linked immunoassay (ELISA) for hydatid disease was found reactive.

Patient was managed with exploratory laparotomy, evacuation and deroofing of cyst and about 10 liters of cyst fluid was drained (Fig.2). Splenectomy could not be
be done as the spleen was too large and was having dense adhesions to surrounding structures. Post operative period was uneventful. Patient was discharged with course of tablet albendazole 10mg/kg body weight for 3 months and praziquintel 10 mg/kg body weight for 15 days. Patient was doing well after 2 years of follow up.

**Discussion:**
Splenic hydatid cyst incidence is reported to be 1 to 4% [3] and is seen mainly in Middle East, India, Australian subcontinent, Africa and Southern America where animal husbandry is common. Usually it is acquired in childhood and there is latent period of 5 to 20 years before diagnosis is made [6]. Growth of Splenic hydatid cyst is indolent and as crude estimate it increases in diameter by 2 to 3 cms every year [7]. Clinical symptoms develop due to pressure effects or rupture of cyst in peritoneal cavity as extra hepatic echinococcosis is usually asymptomatic [8]. Both immunologic resistance of host and reaction offered by enveloping structure contribute to rate of growth. Anaphylactic shock due to rupture of cyst or recurrence can be prevented by proper preoperative diagnosis [9]. Critical to diagnosis of Splenic hydatidosa is its differentiating from other cystic lesions namely epidermoid cyst, pseudocyst, abscess, hematoma and cystic neoplasm of spleen. In long standing cases there is crumpled egg shell calcification in left hypochondrium but ultrasonography and CECT abdomen have more sensitive and specific. CECT abdomen has the highest predictive value as it can detect subtle wall calcification [10]. Diagnosis and detection of early recurrence can be done by standard serological tests like enzyme linked immunoassay (ELISA) and indirect haemagglutination (IHA) tests.

Splenectomy is the gold standard treatment for splenic hydatidosis although the recent trend is toward Splenic conservation surgery with laparoscopic approach in suitable cases in order to prevent Overwhelming Post splenectomy Infection (OPSI). Escape of Echinococcus embryos from 1st and 2nd filter mainly liver and lung sometimes leads to primary SHD.

**Conclusion:**
Primary gigantic Hydatid cyst spleen is extremely uncommon condition. CECT abdomen is the investigation of choice. Patient recovery is complete after evacuation of cyst although splenectomy is preferred technique by most surgeons.

![Fig.1: CT Scan showing huge well defined fluid attenuation cystic lesion with internal daughter cyst and peripheral wall calcification in spleen with thin rim of splenic pyrenchyma](image1)

![Fig.2: Hydatid cyst fluid measuring approximately 10 Liters.](image2)
References:


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