



Water-Lily Sign in Pediatric Chest Imaging

KEYWORDS

Water-lily sign, Hydatid, Imaging, Pediatric

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ABSTRACT *Water-lily sign in chest imaging has played a key role in diagnosing Pulmonary Hydatid disease in a 8 years old child who presented with one week history of cough & fever. Xray Chest was suggestive of Cystic lesion with peri-cystic inflammation, while CT Chest showed the sign in the right lung. Cyst was excised by Thoracoscopy. Child was treated with Albendazole with good response.*

Introduction:

Pulmonary hydatid disease is a well known entity & is diagnosed by Chest imaging. The radiological signs include Water-lily sign where endocyst membrane gets detached & freely floats in the fluid giving the characteristic Water-lily appearance on Xray Chest, Ultrasound scan & CT scan. Other radiological signs are Crescent & Inverse Crescent signs^(1,2) Serological test & ultimately therapeutic medical & surgical interventions prove the diagnosis.

Case

An 8 years old boy presented in outdoor with one week history of high fever & cough & was from rural background. His examination was suggestive of consolidation & effusion on the Rt Infrascapular & infra-mammary regions. Xray Chest (Image 1) showed fluid filled cyst with perilesional pneumonitis & possible effusion. CT Scan Chest revealed characteristic cyst with Water-lily sign in the right lung, which was pathognomonic of Hydatid disease. (Image 2) There were no cysts in any other organ. Cyst was removed thocoscopically & ICD was put. Removed membrane is shown as Image 3. Child was managed with Albendazole & antimicrobials for associated bacterial complication of Pneumonitis with success.

Discussion:

This case highlights importance of clinical findings , radiological correlates & gold standard confirmation by surgery of Hydatid lesion in the lungs. There is scant published literature on the Water-lily sign in Pulmonary Hydatid disease in Children, the sign which picked up the diagnosis in this case unambiguously.

Conclusions:

Water-lily sign is a pathognomonic imaging sign of Hydatid disease, which was distinctly visible in CT Chest in this case ; however it could also be seen in Xray Chest & Ultrasound.

Image 1: Xray Chest showing Cystic lesion affecting Rt Lower & middle zones with surrounding pneumonitis & effusion.



Image 2: CT scan chest with Water-lily sign on the the Rt side



Image 3: Picture of extracted Hydatid cyst membrane



References:

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