

Letter to the Editor

## Cardiac hydatid cyst

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### Dear Editor,

The article by Srinivas MR *et al.* [1] provided excellent information on the “Imaging spectrum of Hydatid Disease”. We, however, would like to make the following contributions.

Cardiac infestation by tapeworm accounts for approximately 2% of all cases of hydatidosis in humans [2-4]. Upon ingestion of ova shed in faeces of carnivores (dogs), the asexual phase of life cycle of the cestode continues in sheep. Man, however, happens to be an accidental host [2-4].

The embryo of the worm enters the circulation via the gastrointestinal tract and reaches the myocardium via the coronary arteries [2,4]. The dominance of left coronary artery and the greater bulk of the left ventricle makes this chamber the most frequently affected site. Inhabitation of right ventricle, pericardium, pulmonary artery, left atrial appendage, and interventricular septum is seen in descending order of frequency [2]. The myocardium may also be involved secondarily by direct contact with cysts in liver [2], lung [2], and mediastinum [4] or by rupture of a lung hydatid into the pulmonary vein [2].

Once inside the myocardium, the embryo transforms into larval stage (hydatid cyst). A differential pattern of growth is seen in different chambers of the heart, with subendocardial and intracavitary growth in the right ventricle and a subepicardial location in the left ventricle [2]. Since the parasite is slow to grow, most often it does not produce any symptoms [2,3]. The most common presentation is of vague precordial pain [2]. Rupture of the hydatid can lead to catastrophic events including pulmonary embolism, cardiac tamponade, anaphylaxis, and sudden death [2,3].

Cardiac hydatid can be imaged with echocardiography, computed tomography (CT), or magnetic resonance imaging (MRI) [2]. CT depicts calcification of the cyst wall to an advantage, but the precise anatomic localisation and post-treatment follow-up is best performed with an MRI [2]. The cyst is hypointense on T1 and hyperintense with a hypointense rim on T2 (Figure 1). Morphologically, the hydatid may be unilocular or multinodular, thin or thick walled, and single or multiple in number. A detached inner layer or multiple daughter cysts within are pathognomonic appearances [2].

Surgery under cardiopulmonary bypass with pre- and post-interventional benzimidazole therapy is the treatment of choice [2,4].



Fig. 1. Coronal MRI reveals multiple cysts with daughter cysts, pathognomonic for hydatid, involving the heart (L – lungs, Li – liver)

### References

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