Letter to the Editor

Adult Cardiac Surgery

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Interventricular septal hydatid cysts: Lessons from the Anatolian experience and surgical considerations

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Dear Editor,

We read with interest the report by Çetik et al.[1] on the surgical treatment of a hydatid cyst located in the interventricular septum (IVS). The successful outcome is encouraging, but several aspects of the report deserve further comment.

First, the authors describe hydatid disease as a "protozoal disease." Cystic echinococcosis is a cestode infection caused by the larval stage of *Echinococcus granulosus sensu lato*, as defined in the recently published World Health Organization (WHO) guidelines.[2]

The report would also benefit from consideration of the substantial surgical experience previously published from Türkiye. In 2003, we reported our institutional experience and a systematic review of 62 surgically treated cases of cardiac hydatid disease from Anatolia.[3] The IVS was involved in 12 patients (19.3%), making it one of the most frequently affected cardiac sites after the left ventricle. Thus, although cardiac echinococcosis is rare, septal involvement represents a clinically important and well-documented anatomical pattern in endemic regions.

That analysis also addressed issues directly relevant to the present case. Most operations were performed using cardiopulmonary bypass, moderate hypothermia, and cardioplegic arrest. The operative field was isolated with pads, followed by controlled aspiration, application of a scolicidal agent, cystectomy, and closure or capitonnage of the residual cavity, as appropriate. Importantly, IVS involvement was associated with complete heart block requiring permanent pacemaker implantation in two patients, while septal rupture was the cause of death in another reported patient. These observations emphasize the vulnerability of both the conduction system and the septal myocardium.

Moreover, Selcuk et al.[4] previously reported a 5.1×3.9×3.8-cm hydatid cyst in the IVS diagnosed by multislice computed tomography. The cyst was removed under cardiopulmonary bypass and cardioplegic arrest through a transaortic approach after aspiration and irrigation with hypertonic saline. This closely comparable case is particularly relevant to the operative strategy adopted by Çetik et al.[1]

In the present case, the authors approached the cyst through a 2-cm right ventriculotomy and irrigated the residual cavity with "abundant fluid".[1] Further operative detail would help readers understand this strategy. In particular, it would be useful to know why the authors preferred a ventriculotomy over a transatrial or transaortic approach, what solution and concentration they used for irrigation, and whether they cross-clamped the aorta and arrested the heart before manipulation. The report also does not explain how the operative field was protected against spillage or whether the residual septal cavity was closed. Given the risk of conduction system injury, pre- and postoperative electrocardiographic findings would be informative. Although postoperative echocardiography showed no residual cyst, histopathological confirmation of echinococcosis is not reported and should also be clarified.

The 2025 WHO guidelines focus on hepatic and pulmonary cystic echinococcosis and do not offer specific recommendations for cardiac disease.[2] In the absence of cardiac-specific guidance, published surgical experience from endemic regions remains particularly valuable. Including these directly relevant Anatolian data would have placed this case in a clearer clinical context and provided readers with a fuller account of the operative options and hazards associated with interventricular septal hydatid cysts.

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Footnotes

Authorship Contributions

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