

## *Images in Congenital Heart Disease*

# Ventricular perforation by a cardioverter lead in a small child

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**A** 4-YEAR-OLD GIRL WAS RESUSCITATED AFTER presenting with a history of ventricular fibrillation. Electrophysiological investigations were performed, and the suspected diagnosis of Brugada syndrome was confirmed by genetic linkage analysis. The Brugada syndrome is believed to be responsible for up to one-eighth of all sudden deaths.

With this in mind, we implanted a single-coil defibrillation lead (Riata™, 1582, St. Jude Medical®; Saint Paul, USA), with its extendable helix. Follow-up in hospital was uneventful. One month later, the girl presented with acute chest pain. Chest radiography (Fig. 1) revealed a markedly abnormal location of the lead, suggestive of right ventricular perforation. This was confirmed by three-dimensional reconstruction of images obtained using 16-slice spiral computed tomography (Fig. 2). After extraction of the lead, which resulted in moderate pericardial effusion, we inserted a passive fixation lead without any helix (Riata™, 1572). Such passive fixation of leads may be warranted in small children with thin-walled right ventricles.

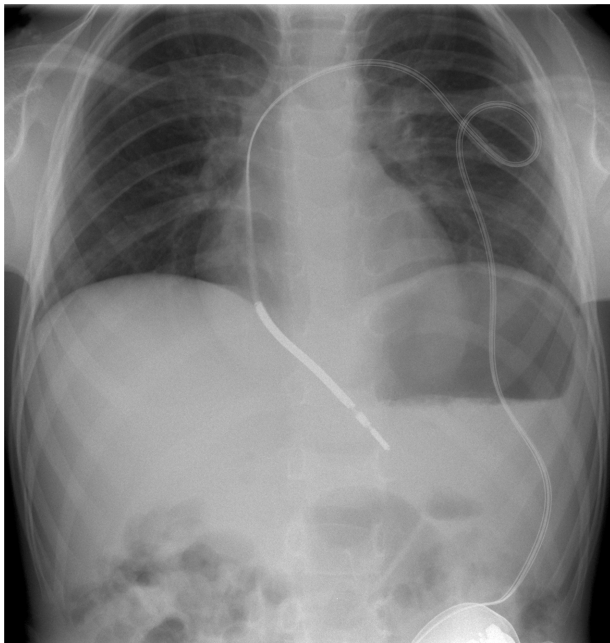


Figure 1.

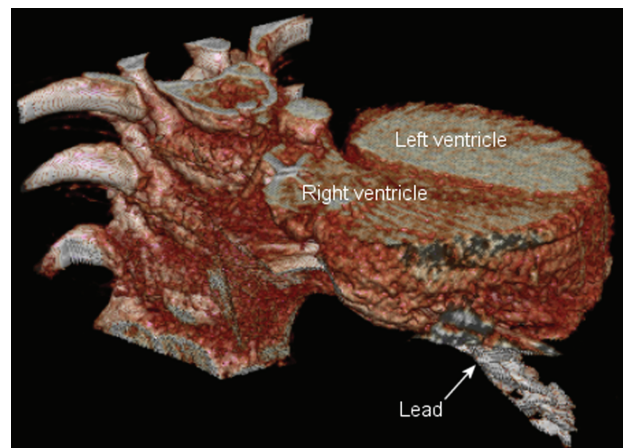


Figure 2.

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