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IMAGES IN PAEDIATRICS

Pacemaker twiddling

A 10 year old boy with severe learning disabilities had a permanent subpectoral endocardial pacemaker for intermittent heart block. Twenty three months later, he presented with an episode of collapse associated with pacemaker failure. Chest x ray examination showed that he had twiddled the pacemaker clockwise and pulled the lead out of the right ventricle (radiograph A). A new pacing system was inserted (radiograph B). At revision, surprisingly, there was no fibrosis around the generator or wire. In an attempt to fix the generator more firmly,

it was placed in the original subpectoral pocket, but in a dacron pouch (Parsonnet pouch) to promote fibrosis. He presented again, 17 days later, with a further episode of collapse associated with pacemaker failure. Repeat chest x ray examination showed that he had twiddled the pacemaker anticlockwise and the pacing lead had perforated the right ventricle into the abdomen (radiograph C). This illustrates the difficulties and the potential risk in children with learning disabilities.

Twiddler's syndrome leading to pacemaker failure, although rare, is

recognised in children. Children with learning disabilities are more susceptible because of conscious or subconscious twisting of the pacemaker box and poor comprehension of consequences. Subpectoral implantation of the pacing box may prevent this complication, although this was unsuccessful in this child. A chest radiograph should be performed in cases of pacemaker dysfunction to exclude this complication.

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