

EP CASE REPORT

Peritoneal migration of an epicardial pacemaker

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A newborn with complete congenital atrioventricular block of immune origin, in severe heart failure, was implanted with a pacemaker at 1 day of life. The pacing lead was fixed to the epicardial right ventricle and the generator conventionally implanted in a pocket created beneath both rectus muscles (VVIR 90 b.p.m., output 2.5 V/0.4 ms).

When the newborn was 4 years old, she suddenly became symptomatic with syncope. She was admitted to the hospital and the electrocardiogram showed a complete atrioventricular block with junctional escape rhythm at 40 b.p.m. and visible spikes failing to capture the ventricle. Surprisingly during the examination, the device could not be detected by the programmer head. An X-ray was performed (Figure, Panels A and B) showing a migration of the generator resulting in right ventricular epicardial lead traction. Knowing the actual location of the device, new interrogation was successful showing an increase in pacing threshold at 3.5 V, normal impedance at 725 ohms, and ventricular detection at 5 mV. The patient did not complain of abdominal pain or urinary signs.

An increase in pacing threshold due to generator displacement and lead traction was suspected and a surgical management was decided. An upper-midline laparotomy was performed and an intraperitoneal migration of the device into the Douglas cavity was discovered and the material explanted. A new dual chamber epicardial pacemaker was implanted by sternotomy. Right atrial and ventricular epicardial leads were sutured to the heart and tunnelled subcutaneously to a left retropectoral pocket where the device was placed. She was discharged from the hospital without complication and remained free of syncope after 1-year follow-up.

Intraperitoneal pulse generator migration is a rare although a serious complication of epicardial pacemaker implantation. Physicians should be aware of such possible event, particularly in patients who are pacemaker dependent, because loss of capture, and syncope, can occur.

Conflict of interest: none declared.

