A 82-year-old obese woman with a history of permanent atrial fibrillation with slow ventricular response and syncope underwent pacemaker implantation using a single passive-fixation lead. Before discharge, a chest X-ray revealed a pacemaker lead placed in the right ventricular apical region, and an ECG recording showed a proper function of the pacemaker (Panel A—arrowheads indicate pacemaker artefacts).

Three months later, the patient was readmitted to the hospital for dizziness and near syncope episodes. As shown in Panel B, in the chest X-ray detail, a displacement of the ventricular lead into the right subclavian vein along with three windings of the lead around the pulse generator was noticed (arrows). Moreover, the ECG recording disclosed pacemaker dysfunction with complete undersensing and pacing failure (arrowheads). Pacemaker twiddler’s syndrome (i.e. pacemaker malfunction due to the patient’s conscious or unconscious manipulation of the pulse generator) was taken into consideration, but the patient and its relatives denied any manipulation of the device. Instead, since the patient had congenital hip luxation and used a stable aluminium orthopaedic walker, the repetitive rotational movement of the shoulders could have contributed to a spontaneous lead dislodgement and coiling. Accordingly, a new active fixation lead was implanted and the patient was advised to use a rolling walker.

Twiddler’s syndrome is an uncommon cause of pacemaker failure and this report suggests that, besides twiddling, additional mechanisms might be involved. Female gender, obesity, older age, and dementia constitute risk factors. Active-fixation leads should be probably preferred to prevent the syndrome.