

Be wary when removing pacing wires and drains! Complications can and do happen

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Dear Sir,

We read the case report by Warner *et al.* [1], 'Hemorrhagic Shock After Epicardial Pacing Wire Removal', with great interest as we too have experienced complications as the result of removing pacing wires in a cardiac intensive care patient. This occurred twice in the same patient during the same hospitalisation. The two differences between both our cases were: firstly, that the pacing wire of the authors' patient was epicardial while ours was transvenous; and, secondly, their removal in the former resulted in a haemoperitoneum resulting in hemorrhagic shock, while with our patient, the removal resulted in the more common complication of cardiac tamponade. In addition, a second episode of cardiac tamponade occurred with the removal of a pericardial drain which, ironically, had been placed as a result of the first episode of cardiac tamponade.²

In our case, a 79-year-old female had presented for an elective Transcatheter Aortic Valve Replacement (TAVR). Temporary transvenous pacemaker (TVP) wires were placed via the left common femoral vein. She was subsequently transferred to the ICU, extubated and found to be in a stable condition. A two-dimensional transthoracic echocardiography (TTE) performed on postoperative day (POD) 1 was unremarkable and a decision to remove the pacer wires was made. Thirty minutes after TVP removal, the patient became diaphoretic and hypotensive. An emergent TTE was performed at the bedside demonstrating a moderate pericardial effusion consistent with cardiac tamponade physiology. A pericardiocentesis was emergently performed with drainage of 180 ml of sanguineous fluid and the placement of a pericardial drain. On POD 3, the patient remained stable, with a minimal amount of drainage. A repeat TTE showed no new

pericardial effusion and the pericardial drain was removed. A few hours after, the patient again developed similar acute symptoms of diaphoresis and became haemodynamically unstable. An emergent TTE revealed the re-accumulation of pericardial fluid. The pericardiocentesis performed this time drained 200 mL of frank blood. The patient was re-admitted to the ICU with a plan to continue conservative management and leave the drain in place for 72 hours. On the fourth day after re-drainage (POD 7), the pericardial catheter was clamped and TTE was performed 2 hours post clamping showing no accumulation of pericardial fluid. The drain was removed, and the patient remained in the ICU for 24 hours prior to being transferred from the ICU to a step-down unit [2].

We want to thank the authors for shedding light on how imperative it is that proper caution is exerted while removing pacing wires. We hope readers will learn from our personal experience that these complications may present themselves in different fashions, including cardiac tamponade and haemoperitoneum, and that the provider must have both of these on their differential diagnosis. Lastly, in addition to epicardial pacing wires, transvenous pacing wires and pericardial drains may also cause the same life-threatening complications.

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References:

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