Death is temporary: A severe case from complication of temporary cardiac pacing

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Introduction: Temporary trans venous cardiac pacing is still one of the choice in acute profound bradycardia. They were used in emergency situations especially for older patients in poor general condition who are hemodynamically unstable that suffering from severe bradyarrhythmias. Complications include local trauma, pneumothorax, arrhythmias, and cardiac perforation, and in some case death on the table can also occur. This case report is made to warn us about how our intention to saving life can make debilitating effect to the patient.

Methods: A 78 years old woman came to emergency NCCHK hospital suffering from malaise and near syncope. She felt dizzy 7 days prior to hospital. On physical examination, her blood pressure were about 180/100 mmHg with heart rate 30-35 bpm. there was Pansystolic murmur 3/6 in the left lateral sternal border, and profound pulmonic sound. Electrocardiogram showed total atrioventricular block with appearance “Salvatore deli’s moustache” on precordial lead. The patient than took to catheterization lab for temporary pacing. Assuming the apex was scarring and not paceable, entering the RV till the base, and pace was occurred. The echocardiographic was made to evaluate the catheter and effusion was minimally shown. 3 days later, the patient was found arrest, and ecg showed asystole, chest decompression was delivered, about 30 minute later the patient was ROSC, the echocardiographic showed effusion markedly elevated, and we assessed as cardiac tamponade. The patient than took to the cath lab for pericardiocentesis. Fluoroscopy was made and found that the bipolar catheter was outside form cardiac silhouettes, assume cardiac was perforated, open thoracostomy was arranged. The operation was successful but unfortunately the patient passed away at the ICU because of blood loss.

Result: Major serious complication of temporary cardiac pacing are not uncommon (22% of all patients), and can range from femoral hematoma to cardiac tamponade and even death (6%). There were some approaches to make sure the position of bipolar catheter has entering and on the apex of the right ventricle. Location of pacing impulse from the electrocardiogram in the daily basis, can evaluate the position of bipolar catheter. Another method requiring echocardiography to find the tip of catheter in apex of RV. In this patient we found the tip was in the basal-apex, but we can not know the rest of catheter whereabouts from echocardiography, the last resort was with fluoroscopy.

Conclusion: We reporting a case of temporary cardiac pacing complication that leads the patient death. The patient suffering from total atrioventricular block due to digitalis intoxication, with differential diagnosis due to sinus node dysfunction. Closed monitoring has to be made for cases with problems intra procedure. ECG and Echocardiographic monitoring is a must to asses the position of bipolar catheter at right place.