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A rare cause of pacemaker´s dysfunction: twiddler syndrome

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A 63-year-old male patient, diagnosed with high degree atrio-ventricular block after 24 hours of ambulatory monitoring, presented with recurrent episodes of syncope. A dual-chamber permanent pacemaker implantation with DDD pacing was placed. Five months later, the patient came back with several syncopes, after monitoring, the heart rate was sixteen beats per minute and the electrocardiogram (EKG) showed a high degree atrio- ventricular block and was immediately transferred to the cathlab. The fluoroscopy revealed that the device was stable but both atrial and ventricular leads were in the right atrium (A). The diagnosis of "Twiddler syndrome" was considered. Right after the ventricular lead was replaced (B) in the right ventricule, the heart rate increased and the spikes appeared behind the QRS which were wide. At 4-months follow-up, the patient was asymptomatic and device interrogation showed no abnormalities. Twiddler syndrom results from the manipulation of the device implanted by the patient himself. It´s often revealed by a dislocation of the device from his lodge. The dislocation of a lead with a stable device like in our case is a rare condition. To prevent this syndrome it is recommended to fix this device to the muscle, make its lodge smaller. The use of a lead with active fixation is recommended by certain teams.

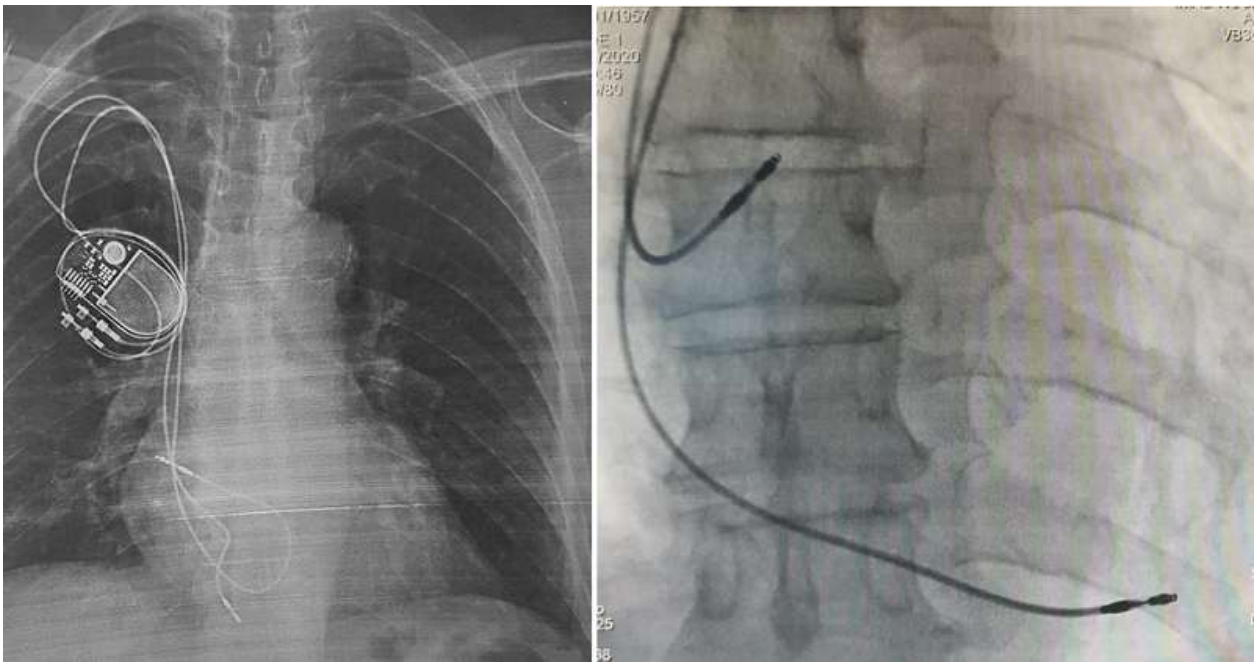

Figure 1: (A) chest X-RAY showing the two leads in the right atrium; (B) image after lead´s replacement