Case 1. A 78-year-old female with recurrent syncope was referred to our hospital. An electrophysiological study showed negative results. Coronary angiography did not show organic stenosis. In spite of extensive investigation, the cause of syncope remained unknown. We implanted an implantable loop recorder (ILR). One month after implantation, she suffered two episodes of palpitation when ILR showed long asystolic pauses at the time of conversion of atrial fibrillation to sinus rhythm. She was diagnosed as having brady-tachycardia syndrome. A pacemaker was implanted and no more syncope occurred thereafter.

Case 2. A 75-year-old male with traumatic subarachnoid hemorrhage after syncope was referred to our hospital. Despite a detailed evaluation including complete history, tilt testing, 24h ambulatory recording, electroencephalogram, we had no definitive diagnosis. He received ILR. Two months after implantation, he had a syncope on evacuation, when no arrhythmic event was recorded on ILR. He was diagnosed situational syncope. In conclusion, ILR was useful when the cause was unknown.

Keywords: implantable loop recorder, syncope, pacemaker