Introduction: The pacemaker lead over retraction phenomenon is an uncommon cause of pacemaker lead dislodgement which is occurred due to an unknown mechanism.

Methods: A 45 year old lady who underwent a dual chamber permanent pacemaker implantation with the indication of complete heart block, and presented after 4 months with twitchy movements of left upper chest region without having any evidence of syncope. The electrocardiogram showed right ventricular pacing at 60 beats per minute with underlying atrioventricular dissociation. Immediate fluoroscopic examination revealed complete recoiling of atrial lead inside the generator pocket resulting capture of the underlying pectoral muscle fibers and intact right ventricular lead.

Result: Initially, pacemaker atrial channel was set to inactive mode and subsequent pocket capsulotomy and atrial lead re-implantation with adequate tightening of atrial lead restored optimal function of the device.

Conclusion: The pacemaker lead over retraction phenomenon can be identified as unusual cause of pacemaker malfunction. Chest X-ray or immediate fluoroscopy and electrocardiograms are the simple and cost effective first line investigations for its diagnosis.