Strategies to avoid inappropriate therapies due to ventricular double detection in biventricular pacing implantable cardioverter/defibrillators.

Implantation of biventricular pacing implantable cardioverter/defibrillators (ICD) is a new therapeutic approach for the treatment of chronic heart failure and the prevention of sudden cardiac death. Due to a common left and right ventricular sensing channel in first generation biventricular pacing ICD, ventricular double sensing and subsequent delivery of inappropriate therapies occurs in some patients. A case of inappropriate anti-tachycardia pacing due to ventricular double detection is described. After programming short postventricular atrial refractory period, abandoning postventricular atrial refractory period extension in case of ventricular premature beats, increased upper rate limits and after careful selection of tachycardia detection criteria and anti-tachycardia programming no further inappropriate therapy occurred.