Response Actions for Appropriate Implantable Cardioverter Defibrillator Therapies: Analysis of Recent 3-Year-Follow-Up Data

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Background: It is reported that an implantable cardioverter defibrillator (ICD) shock, even if appropriate, worsens mortality. We examined response actions for the appropriate ICD therapies. Method: In our hospital, device data have been checked by an ambulatory practice every 4 months. We analyzed recent 3-year-follow-up data. Result: As the appropriate therapies, total 70 events were observed in 31 cases (VT zone: 50 events, VF zone 20 events). In 50 events of VT zone, ventricular tachyarrhythmia (VT/VF) was stopped spontaneously in 4 events, by antitachycardia pacing (ATP) in 44 events, and by shocks in 2 events. In 20 events of VF zone, VT/VF was stopped spontaneously in 3 events and by shocks in 17 events. Almost all cases were given a beta-blocker. Among 44 events in which VT/VF was stopped by ATP, the dose of a beta-blocker was increased in 9 events and the device settings were changed to prevent under-detection in 4 events. Among 19 events in which VT/VF was stopped by shocks, the antiarrhythmic agents were changed in 9 events. Conclusion: Even if the patients implanted with ICD received the appropriate therapies, further treatment choices were often limited because most cases were already given a beta-blocker. Therefore, changes were not often made, especially in the case in whom ventricular tachyarrhythmia was stopped by ATP. Keywords: ICD, anti-tachycardia pacing, beta blocker