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Case Report

Images in medicine: Second-degree burns as a result of 150 DC shocks

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Case Presentation

A 84-year-old female was admitted to Coronary Unit from a regional hospital due to recurrent ventricular fibrillation and torsade de pointes as a consequence of complete AV block. During hospitalization in the regional hospital, a large number of ventricular fibrillations and torsade de pointes were registered which were converted with 150 DC shocks with intensity ranging from 200J to 300J. Physical examination revealed second-degree burns in the right pectoral and left hypochondriac area (Figure 1.). ECG showed complete AV block with narrow QRS complexes and ventricular rate of 20 beats per minute. The patient was immediately referred to the heart catheterization laboratory due to implantation of temporary pacemaker. After the initial preparation of the patient, endocardial electrode of temporary pacemaker was implanted using right femoral vein. Afterwards, ECG revealed proper capture with the frequency of 60 beats per minute, without occurrence of ventricular fibrillation or torsade de pointes.

Skin burns from DC shocks are not rare and in most cases include superficial erythema at the paddle site. However, proper use of external defibrillators, in terms of delivering enough energy for conversion of the rhythm and minimizing damage caused by DC shocks is needed. On the other side, damage caused as a result of DC shocks is definitely less then the damage which might occur as a result of non-application of DC shocks, especially in the case of ventricular fibrillation or torsade de pointes.

Figure 1. Second-degree burns in the right pectoral and left hypochondriac area due to 150 DC shocks.

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