

ABSTRACT

IRREVERSIBLE PERFORATION SYSTEM FOR USE IN CARDIAC VESSELS

The present invention provides an irreversible perforation system for use in cardiac vessels, and relates to the technical field of vascular perforation. The perforation system includes: a blood vessel image acquisition module, a blood vessel position model construction module, a perforation position determination module and a perforation module; the blood vessel image acquisition module is configured to acquire cardiac vessel images of a patient; the blood vessel position model construction module is configured to set a three-dimensional cardiac vessel model based on the cardiac vessel images, and mark a perforation position in the three-dimensional cardiac vessel model; the perforation module includes a high-voltage electric pulse perforation unit, which is configured to output high-voltage electric pulses; and the perforation position determination module is configured to link a motion position of the high-voltage electric pulse perforation unit with the perforation position. The present invention can establish a model based on vessel images and link the motion position of the high-voltage electric pulse perforation unit with the perforation position, in order to solve the existing problem of low accuracy in vascular perforation position determination.

FIG. 1