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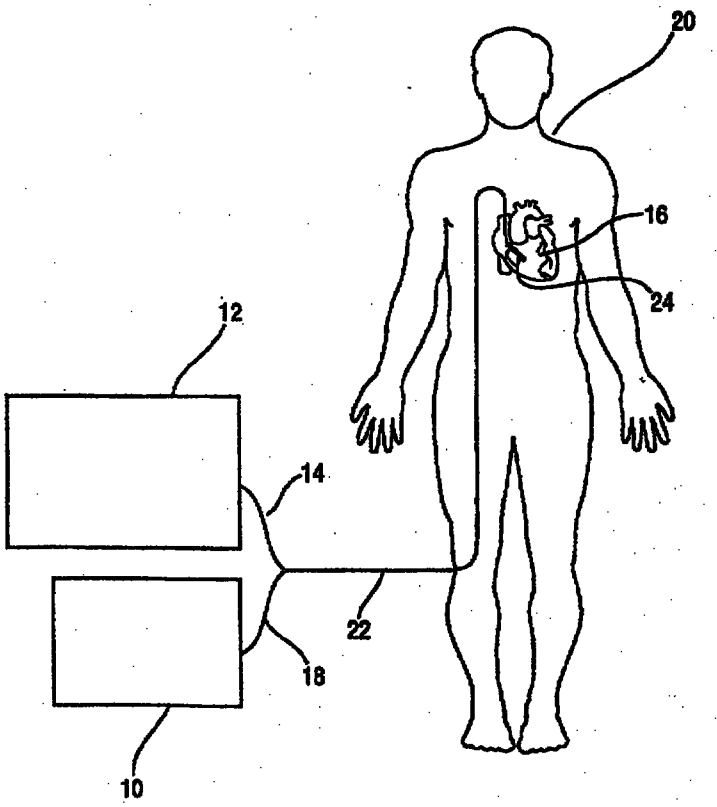
(54) Title: A MANEUVERABLE ELECTROPHYSIOLOGY CATHETER FOR PERCUTANEOUS OR INTRAOPERATIVE ABLATION OF CARDIAC ARRHYTHMIAS

(57) Abstract

A catheter (22) capable of both sensing myocardial electrical activity and delivering ablating energy within myocardial tissue, is disclosed. The catheter (22) comprises electrodes (38, 39) on the outer sheath and contains a movable fiber optic cable (42) that can be percutaneously advanced beyond the catheter body (22), and into the myocardium for myocardial heating and coagulation, or modification of tissues responsible for cardiac arrhythmias. The fiber optic tip (42) is designed to diffuse ablating energy radially to ablate a larger volume of tissue than is possible with a bare fiber optic tip. In addition, the tip is treated so that energy is not propagated in a forward direction, thus helping to prevent unwanted perforation of the heart tissue. Also disclosed is a method of cardio-protection from ischemia comprising inducing local hyperthermia in heart tissue.