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[Continued on next page]

(54) Title: IMAGE GUIDED PLAQUE ABLATION

System Diagram

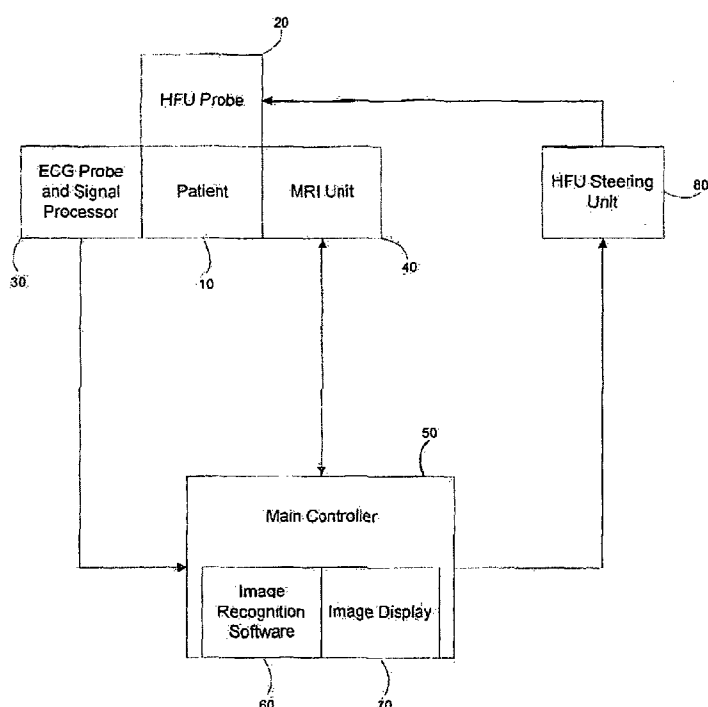


FIG. 1

(57) Abstract: A method and system for reducing vascular plaque non-invasively comprising the steps of imaging at least a portion of a mammalian body to produce an image; determining the location of at least one vascular plaque in said image; ascertaining the location of the base of said vascular plaque, said location of base being the target location; precisely determining the relative position of said target location with respect to the cardiac rhythm in the body; delivering a beam of ultrasound energy waves from a source to the relative position to elevate temperature of said target location in a pre-determined manner; monitoring the temperature of the target location; and discontinuing delivery of ultrasound energy waves when said target location achieves a predetermined set temperature.

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