

Title (en)

EXPANDABLE PMR DEVICE AND METHOD

Title (de)

EXPANDIERBARE VORRICHTUNG ZUR TRANSMYOKARDIALEN REVASKULARISATION UND VERFAHREN

Title (fr)

DISPOSITIF DE REVASCULARISATION MYOCARDIQUE TRANSCUTANEE DEPLOYABLE ET PROCEDE CORRESPONDANT

Publication

**EP 1058517 A2 20001213 (EN)**

Application

**EP 99911188 A 19990305**

Priority

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Abstract (en)

[origin: WO9944524A2] An intravascular device and methods for forming multiple percutaneous myocardial revascularization (PMR) holes in a heart chamber wall simultaneously. One device includes a basket formed of flexible arms carrying cutting probes over their length. The basket arms are outwardly arcuately biased so as to assume an outwardly bowed, arcuate shape when unconstrained. The device includes an inner shaft distally secured to a proximal portion of the basket and slidably disposed within an outer shaft. The inner shaft and collapsed basket can be retracted within the outer shaft, delivered intravascularly to the left ventricle, and distally advanced, forcing the basket to assume the bowed shape. Radio frequency current supplied to the electrical cutting probes burn holes into the ventricle wall and myocardium. One embodiment has high pressure fluid jet cutting means. Another embodiment uses a basket as an anchor to position a steerable cutting probe. Yet another embodiment includes a brush formed of multiple, arcuate, outwardly splayed electrodes that can contact heart chamber walls once advanced distally from a constraining outer shaft. Another embodiment includes an elongate shaft having a proximal end and a distal end, and a conductor extending therethrough. An insulator disposed around the conductor. At least one conductive loop disposed at the distal end of the shaft. The conductive loop having an electrode disposed at its distal end.

IPC 1-7

**A61B 17/39; A61B 17/22**

IPC 8 full level

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CPC (source: EP)

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