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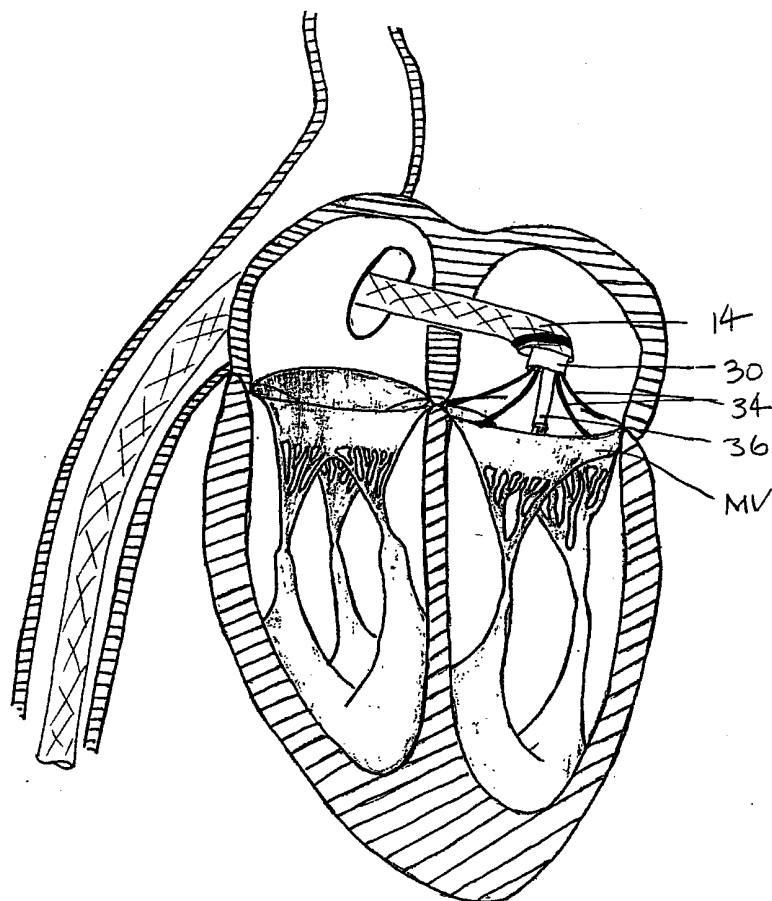
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DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,

[Continued on next page]

(54) Title: METHODS AND APPARATUS FOR CARDIAC VALVE REPAIR



(57) Abstract: The methods, devices, and systems are provided for performing endovascular repair of atrioventricular and other cardiac valves in the heart. Regurgitation of an atrioventricular valve, particularly a mitral valve, can be repaired by modifying a tissue structure selected from the valve leaflets, the valve annulus, the valve chordae, and the papillary muscles. These structures may be modified by suturing, stapling, snaring, or shortening, using interventional tools (30, 36, 56) which are introduced to a heart chamber. Preferably, the tissue structures will be temporarily modified prior to permanent modification. For example, opposed valve leaflets may be temporarily grasped and held into position prior to permanent attachment.



WO 00/60995 A3



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# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US00/09290

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) :A61B 17/04  
US CL :606/150

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 606/139, 142, 144, 150, 151; 623/2.11

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WEST  
Search Terms: valve, leaflet, vasculature, catheter, coapt, ventricular, suture

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,716,367 A (KOIKE et al.) 10 February 1998, whole document.	65-67, 71, 72, 76, 77, 79, 80, 87
X,P	WO 00/03759 A (KUEHN et al.) 27 January 2000, whole document.	87-90

Further documents are listed in the continuation of Box C.       See patent family annex.

<p>* Special categories of cited documents:</p> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier document published on or after the international filing date</p> <p>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p>	<p>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</p> <p>"&amp;" document member of the same patent family</p>
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Date of the actual completion of the international search	Date of mailing of the international search report
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