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[Continued on next page]

(54) Title: DIRECT STREAM HYDRODYNAMIC CATHETER SYSTEM

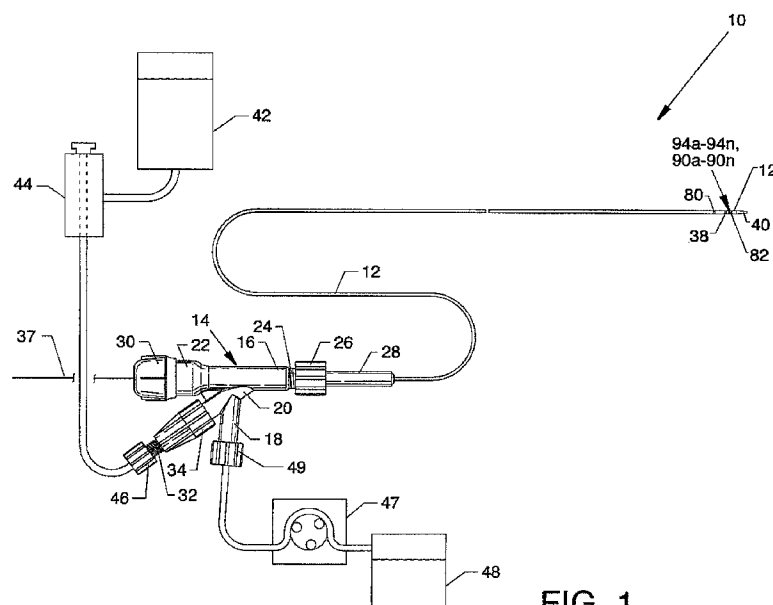


FIG. 1

(57) Abstract: A direct stream hydrodynamic catheter system is provided for the removal of thrombus, lesions and the like including provisions for the infusion of drugs, lysing fluids and the like into a blood vessel. Physician controlled high powered direct fluid jet streams emanate from a fluid jet emanator in the form of robust radially directed fluid jet streams to impinge upon and ablate difficult and strong thrombus or lesions within a blood vessel. Effluent aspiration is controlled by an exhaust regulator in the form of a roller pump, but effluent removal can be assistingly influenced by the fluid pressure associated with the radially directed fluid jet streams.



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A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - A61M 1/00 (2009.01)

USPC - 604/27

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)

IPC(8) - A61M 1/00 (2009.01)

USPC - 604/27

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
604/28, 29, 95.02, 164.13, 529, 35;

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

PubWEST(USPT,PGPB,EPAB,JPAB); Google Scholar;

Search Terms Used: thrombectomy, catheter, high pressure, support, line, hydrophilic, coating, drug, medicament, emanator, jet stream, fluid, radial;

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2006/0129091 A1 (BONNETTE et al.) 15 June 2006 (15.06.2006) Entire document, especially para[0062]-[0064], para[0071]-[0073], para[0089]-[0091] and FIGS. 1, 3, 7-11, & 23-35.	25-36 and 59
Y		1-24 and 37-58
Y	US 2002/0120226 A1 (BECK) 29 August 2002 (29.08.2002) Entire document, especially para[0007]-[0008], para[0050] and FIG. 16.	1-24 and 37-58
Y	US 2005/0049574 A1 (PETRICK et al.) 03 March 2005 (03.03.2005) Abstract, para[0052], para[0068].	14, 42 and 53
Y	US 2007/0282303 A1 (NASH et al.) 06 December 2007 (06.12.2007) Abstract, para[0053], para[0069].	17, 45 and 56

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Further documents are listed in the continuation of Box C.

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"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

"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

"&" document member of the same patent family

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