Title: SYSTEM FOR DETECTING LEAKS AND OCCLUSIONS IN A CRYOABLATION CATHETER

Abstract: A system for detecting leaks and occlusions in a cryoablation catheter requires monitoring pressure in the catheter at the end of two predetermined time intervals. The catheter includes a catheter tube, a cryo-chamber at the distal end of the catheter, and a supply line for introducing fluid refrigerant into the cryo-chamber. Also included is a pressure sensor mounted in the cryo-chamber for measuring a tip pressure. During the first time interval, fluid refrigerant is prevented from flowing through the catheter while the catheter is evacuated by a vacuum pump. The tip pressure is then measured to detect leaks. During the second time interval, fluid refrigerant is introduced into the cryo-chamber while evacuation continues, and the tip pressure is measured to detect occlusions.
### INTERNATIONAL SEARCH REPORT

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC: A61B 18/18(2006.01)

USPC: 606/20-23

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.: 606/20-23

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

EAST

Electronic database consulted during the international search (name of database and, where practicable, search terms used)
chamber, catheter, tube

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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<tr>
<td></td>
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<td>6, 7, 14 and 16-20</td>
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<tr>
<td>A</td>
<td>US 6,440,126 B1 (ABBoud ET AL.) 27 August 2002 (27.08.2002), See ENTIRE DOCUMENT.</td>
<td>1-20</td>
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<td>A</td>
<td>US 5,868,970 A (GODDARD ET AL.) 19 January 1999 (19.07.1999), See ENTIRE DOCUMENT.</td>
<td>1-20</td>
</tr>
</tbody>
</table>

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


date of actual completion of the international search: 25 April 2006 (25.04.2006)

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