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(54) **Title:** METHOD AND SYSTEM TO MONITOR, DETECT, DIAGNOSE AND PREDICT THE SEPARATION/RUPTURE OF THE UTERINE SCAR ASSOCIATED WITH VAGINAL BIRTH AFTER CESAREAN PROCEDURES

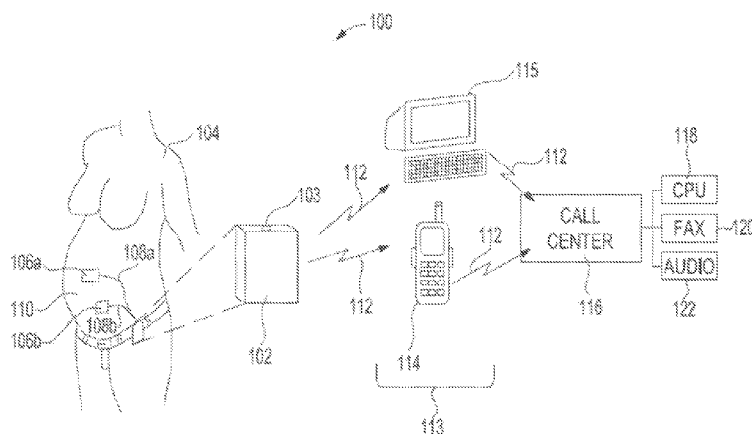


FIG. 1

(57) **Abstract:** A system and method of acquiring and transmitting uterine EMG signals is disclosed, where a signal processing module processes incoming uterine EMG signals from a patient and wirelessly transmits a processed signal to an information relaying device. The information relaying device is then configured to download the processed signal and transmit the signal to a call center or health care facility for physician evaluation. The system is ambulatory, thus allowing the patient to record and transmit uterine EMG signals anywhere a satisfactory transmission may be made. Additionally, a system and method of using electromyography for monitoring and diagnosis of uterine rupturing is disclosed, where incoming electrical signals from the lower uterine segment muscle fibers demonstrate an attenuated signal as the lower uterine segment thins and separates during the dilatation and effacement process of labor identifying those patients at increased risk for rupture.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2012/049315**A. CLASSIFICATION OF SUBJECT MATTER****A61B 5/0488(2006.01)i, H04B 7/24(2006.01)i**

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)

A61B 5/0488; A61B 5/04; A61B 5/0444; A61B 5/0205; A61B 5/00; A61B 5/103; A61B 5/0448

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

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) & Keywords:uterine, labor, caesarean, EMG, abdomen, portable, cellular, mobile

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y A	US 2002-0193670 A1 (ROBERT E. GARFIELD et al.) 19 December 2002 See abstract, paragraphs [0050]-[0054], [0097]-[0111], [0120], claims 1-47 and figures 1, 5A-8.	1,3,13,14,16-20,25 6,9,11,21,22 2,4,5,7,8,10,12,15 ,23,24
X Y	US 2007-0255184 A1 (ADNAN SHENNIB) 01 November 2007 See abstract, paragraphs [0045]-[0047], [0056]-[0060], claims 1-26 and figures 1-13.	1,2 4,6,9,21,22
Y	US 2002-0193701 A1 (NIGEL ALASTAIR BUIST SIMPSON et al.) 19 December 2002 See abstract, paragraphs [0057]-[0063], claims 1-21 and figures 1a-2.	4,11
A	KR 10-2011-0041329 A (EWAH UNIVERSITY - INDUSTRY COLLABORATION FOUNDATION et al.) 21 April 2011 See abstract, paragraphs [0023]-[0038], claims 1-11 and figures 1-4.	1-25
A	US 2009-0259133 A1 (ADAM J. WOLFBERG et al.) 15 October 2009 See abstract, paragraphs [0043],[0044],claims 1-18 and figures 1,2.	1-25

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

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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

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"&" document member of the same patent family

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01 FEBRUARY 2013 (01.02.2013)

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2012/049315

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