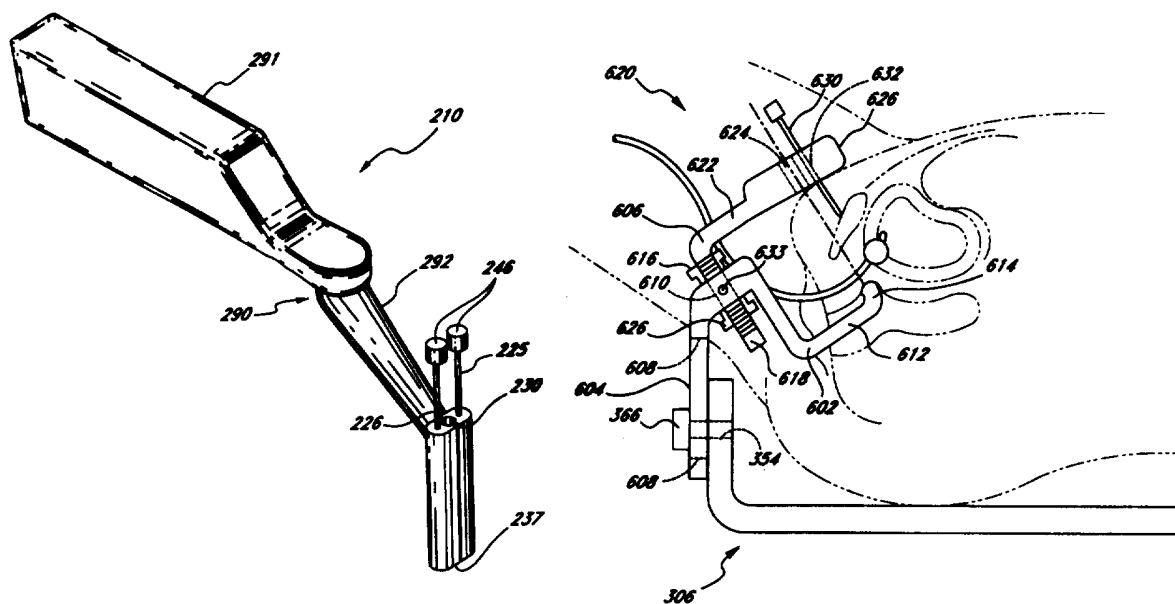




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification ⁵ : A61B 17/16, 17/04, 17/064 A61B 17/10, 17/42, 19/08</p>	<p>A3</p>	<p>(11) International Publication Number: WO 93/19678 (43) International Publication Date: 14 October 1993 (14.10.93)</p>
<p>(21) International Application Number: PCT/US93/03202 (22) International Filing Date: 5 April 1993 (05.04.93) (30) Priority data: 07/862,847 3 April 1992 (03.04.92) US (71) Applicant: VESITEC MEDICAL, INC. [US/US]; 26072 Merit Circle, Suite 125, Laguna Hills, CA 92675 (US). (72) Inventors: BENDEREV, Theodore, V. ; 27748 Somerset Lane, San Juan Capistrano, CA 92675 (US). NAVES, Neil, H. ; 28852 Woodcreek, Mission Viejo, CA 92692 (US). LEGOME, Mark, J. ; 3255 Driza, Mission Viejo, CA 92692 (US).</p>	<p>(74) Agents: SIMPSON, Andrew, H. et al.; Knobbe, Martens, Olson and Bear, 620 Newport Center Drive, 16th Floor, Newport Beach, CA 92660 (US). (81) Designated States: AT, AU, BB, BG, BR, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, VN, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i> (88) Date of publication of the international search report: 23 December 1993 (23.12.93)</p>	

(54) Title: SURGICAL TREATMENT OF STRESS URINARY INCONTINENCE



(57) Abstract

The surgical treatment of stress urinary incontinence is disclosed. The disclosed methods include: 1) a technique of probe passage to avoid injuring the bladder and to provide a more accurate and reproducible capture of the pubocervical fascia lateral to the bladder neck and urethra, 2) anchor fixation of the suspending sutures to the pubic bone to decrease the risk of suture pull through from above and to decrease post-operative pain and 3) a simple and reproducible technique to set a limited tension of the suspending sutures. A description of these methods and results of procedures with some of these methods are disclosed. Novel drill guides, suture passers, suture tensioners, surgical drapes, and support for use in the surgical method are also disclosed. The drill guide comprises a housing with an axially movable probe and a drill guide channel.

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 93/03202

I. CLASSIFICATION OF SUBJECT MATTER (if several classification symbols apply, indicate all) ⁶				
According to International Patent Classification (IPC) or to both National Classification and IPC				
Int. Cl. 5	A 61 B 17/16	A 61 B 17/04		
A 61 B 17/10	A 61 B 17/42	A 61 B 19/08		
A 61 B 17/064				
II. FIELDS SEARCHED				
Minimum Documentation Searched ⁷				
Classification System	Classification Symbols			
Int. Cl. 5	A 61 B			
Documentation Searched other than Minimum Documentation to the Extent that such Documents are Included in the Fields Searched ⁸				
III. DOCUMENTS CONSIDERED TO BE RELEVANT ⁹				
Category ^o	Citation of Document, ¹¹ with indication, where appropriate, of the relevant passages ¹²	Relevant to Claim No. ¹³		
X	EP, A, 0440991 (ACUFEX) 14 August 1991 see column 8, line 4 - line 43; figure 6 ---	1, 5, 6		
X	US, A, 4744353 (MCFARLAND) 17 May 1988 see column 4, line 62 - column 5, line 28; figures 1, 6-8 ---	1, 3, 4		
A	EP, A, 0241240 (GOBLE) 14 October 1987 see column 6, line 30 - line 59 see column 9, line 8 - line 35; figures 1, 8, 12 ---	1		
X	WO, A, 9200773 (GREENBERG) 23 January 1992 see page 12, line 12 - line 20; claim 1; figure 2A ---	18		
-/-				
<p>^o Special categories of cited documents :¹⁰</p> <table style="width: 100%;"> <tr> <td style="width: 50%;"> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier document but 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> </td> <td style="width: 50%;"> <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</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>"&" document member of the same patent family</p> </td> </tr> </table>			<p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier document but 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</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>"&" document member of the same patent family</p>
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IV. CERTIFICATION				
Date of the Actual Completion of the International Search	Date of Mailing of this International Search Report			
26-07-1993	30. 11. 93			
International Searching Authority	Signature of Authorized Officer			
EUROPEAN PATENT OFFICE				

III. DOCUMENTS CONSIDERED TO BE RELEVANT (CONTINUED FROM THE SECOND SHEET)		
Category °	Citation of Document, with indication, where appropriate, of the relevant passages	Relevant to Claim No.
X	GB,A,1448111 (CRABBE) 2 September 1976 see claims 1-4; figure 1 ---	18
X,P	GB,A,2252732 (KANNIVELLU BADRINATH) 19 August 1992 see abstract; figures 12,14,21 ---	1,3,7,8
X,E	WO,A,9310715 (VESITEC) 10 June 1993 see claims 1-15; figures 1-4 -----	1-8

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 93/03202

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

For further information see Form PCT/ISA/206 sent on 27.08.93.

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-8 and 18-21

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

**ANNEX TO THE INTERNATIONAL SEARCH REPORT
ON INTERNATIONAL PATENT APPLICATION NO.**

US 9303202

SA 72778

This annex lists the patent family members relating to the patent documents cited in the above-mentioned international search report. The members are as contained in the European Patent Office EDP file on 08/11/93. The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP-A- 0440991	14-08-91	US-A- 5139520	18-08-92
		AU-A- 7010691	01-08-91

US-A- 4744353	17-05-88	None	

EP-A- 0241240	14-10-87	US-A- 4738255	19-04-88
		AU-B- 593898	22-02-90
		AU-A- 7110887	08-10-87
		CA-A- 1258022	01-08-89
		JP-A- 62243550	24-10-87

WO-A- 9200773	23-01-92	US-A- 5026376	25-06-91
		US-A- 5133720	28-07-92

GB-A- 1448111	02-09-76	None	

GB-A- 2252732	19-08-92	US-A- 5207753	04-05-93

WO-A- 9310715	10-06-93	None	
