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LETTER TO THE EDITOR

Erectile Dysfunction

Trends in the placement of penile prostheses over the last 17 years in France

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Dear Editor,

Erectile dysfunction (ED) currently affects 152 million men worldwide and this number is likely to reach 322 million by 2025.¹ Penile prostheses (PP) placement remains a last-resort option in cases where organic ED has not been cured by previous medications, notably intracavernosal injection and oral phosphodiesterase type-5 inhibitor.²

France ended 2013 with a population of 66 million inhabitants. In our study, we obtained data through the French national code registry database programme de médicalisation des systèmes d'information and from the patient-information forms filled out by the surgeon at the time of the implant. For claim purposes, this system comprehensively records information concerning every surgical procedure that is performed in a private or public hospital in France. Data were extracted for all patients who had undergone a penile implantation between 1997 and 2013.

Overall, 6982 PP were inserted over the last 17 years in France. We found that 2821 PP were implanted in France between 1997 and 2005 (i.e. mean number of 352.6 PP per year), and 4161 PP between 2006 and 2013 (i.e. the mean number of 594.4 PP per year) (Figure 1). Although the number of PP placements has increased considerably over this period, PP appears to be still underutilized in France compared with the USA, where they are used to treat ~ 10% of impotent men.³ In addition, in the future, even more men are likely to develop ED associated with diabetes or other comorbidities, such as metabolic syndrome.

Overall, we found that 1182 revisions (16.9%) and 2264 explanations (32.4%) of PP occurred over the 17 years period (Table 1). PP implantation can require later revisions or even removal due to complications (i.e. infections or mechanical issues). In the literature, the main complication was infection, which developed in 1.7%–6.6% of cases.⁴ In the largest French previous series, of 282 PP, sepsis occurred in 2.2% of cases, 5.6% of cases had mechanical dysfunction, and 9.3% of cases were in the iterative poses.⁵ Wilson *et al.*⁶ estimated that only 60% of first PP implants would survive for >15 years without revision or extraction.

PP is efficacious in most men and have a satisfaction rate of 81% compared with 51% with sildenafil and 40% with intracavernosal injections.^{4–8}

As yet, PP is only implanted, in France, in a limited number of tertiary referent centers. It would be of benefit if these centers communicated with general practitioners and the general population on this successful therapeutic approach. In the light of current data, PP may be underused in France because medical personnel and the general population have little information on this therapy.

Finally, PP is really an expensive procedure, and cost can become an issue in many countries since few patients have the ability to afford the price of the device. However, the cost is not an issue in France as the health care system refund patients who require a PP, notably those who have diabetes and prostate cancer. Indeed, public hospitals do buy prostheses. The possibility of PP placement may depend on factors-related to catchment areas, patient recruitment, management, and strong differences in health care systems from country to another in the western world. Thus, we have no data to make a direct comparison between countries, and it is difficult to know whether these considerations can be translated in other countries.

AUTHOR CONTRIBUTIONS

PL and TS extracted national data. PL and PM wrote the manuscript. SB was involved in the critical revision of the manuscript. MR was a senior author and initiated the conception and the draft of this letter.

COMPETING INTERESTS

The authors declare that they have no competing interests.

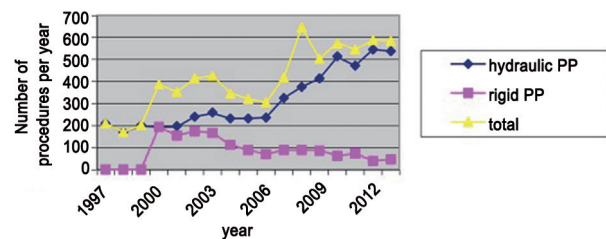


Figure 1: Trends in penile prosthesis implantation between 1997 and 2013 in France.

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Table 1: Trends in the numbers of PP devices implanted, the need for revision, and the explanation procedures used in France since 1997

	Hydraulic PP			Rigid PP	Total implantation PP	Revisions hydraulic PP			Removals PP			Total procedure per year			
	With extra cavernous component	Without extra cavernous component	Total hydraulic PP			With extra cavernous component	Without extra cavernous component	Total revisions PP	With extra cavernous component	Without extra cavernous component	Total removals				
2013	427	22	449	38	487	66	12	78	75	24	99	664			
2012	526	20	546	40	586	85	13	98	102	32	134	818			
2011	458	14	472	74	546	76	5	81	89	41	130	757			
2010	498	15	513	61	574	102	6	108	88	38	126	808			
2009	384	31	415	87	502	83	13	96	66	40	106	704			
2008	359	18	377	88	465	87	11	98	78	51	129	692			
2007	313	14	327	89	416	64	17	81	62	56	118	615			
2006	228	8	236	71	307	59	10	69	61	58	119	495			
2005	208	10	16	234	88	322	63	2	21	86	57	3	59	119	527
2004	128	67	39	234	112	346	51	17	9	77	37	44	55	136	559
2003	5	250	3	258	167	425	4	49	1	54	3	150	4	157	636
2002	0	237	2	239	174	413	1	52	2	55	4	149	2	155	623
2001		196		196	155	351		42		42		138		138	531
2000		193		193	193	386		36		36		151		151	573
1999		200		200	0	200		37		37		135		135	372
1998		169		169	0	169		49		49		163		163	381
1997		209		209	0	209		37		37		149		149	395
Total in 17 years			5267	1437	6704			1182				2264		10150	

PP: penile prosthesis

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