

An improved external penile support

Mingguang Yi

12 Marwood Ave, Truganina, VIC, 3029, Australia

Correspondence to: Mingguang Yi, Retired electronics engineer. 12 Marwood Ave, Truganina, VIC, 3029, Australia. Email: 1678845810@qq.com.

Received: 15 January 2019; Accepted: 26 January 2019; Published: 03 February 2019.

doi: 10.21037/amj.2019.01.09

View this article at: <http://dx.doi.org/10.21037/amj.2019.01.09>

Penile support has been one of the options that patients with erectile dysfunction expect. However, current products on the market are inconvenient for patients because most existing supports take the form of full support, i.e., from the base of the penis to the coronal (1). Therefore, it is necessary to customize support for each individual patient to match their penis length. This article describes an improved support, Titanium Saddle Ring (TSR), as shown in *Figure 1A*, which is formed from a titanium shape memory alloy wire covered by a latex tube (2). In order to achieve better overall satisfaction and avoid customization, the TSR uses a short support method, which is about half the length of the penis, as shown in *Figure 1B*. The dimension of the TSR is characterized by its inner diameter and length, expressed as “diameter × length”. The typical TSR size is 26 mm × 65 mm, which is sufficient for moderate ED

patients to penetrate the vagina. However, this is not suitable for patients with severe ED because it will fall off during sexual intercourse. In order to firmly hold the penis of a severe ED patient, two additional support rods need to be added, as shown in *Figure 1C*. In this way, it becomes a practical external penile prosthesis (3). Due to the super elasticity of the titanium alloy wire, the TSR has a maximum clamping force of up to 1 kg and a tensile inner diameter of up to 40 mm. Therefore, it has good dimensional adaptability and can cover the penis size of most patients in only a few size specifications.

Penile support has a long history, but its application prospects have not been fully confirmed so far (4). The above TSR supports do not require customization and are easy to mass produce. The author hopes that this article will promote clinical trials of penile support.



Figure 1 Improved penile supports. (A) A titanium saddle ring; (B) short support method; (C) a practical penile prosthesis.

Acknowledgments

Funding: None.

Footnote

Provenance and Peer Review: This article was a standard submission to the editorial office, *AME Medical Journal*. The article has undergone external peer review.

Conflicts of Interest: The author has completed the ICMJE uniform disclosure form (available at <http://dx.doi.org/10.21037/amj.2019.01.09>). This study is the author's independent research. There is no any interest to disclose.

Ethical Statement: The author is accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Open Access Statement: This is an Open Access article

doi: 10.21037/amj.2019.01.09

Cite this article as: Yi M. An improved external penile support. *AME Med J* 2019;4:9.

distributed in accordance with the Creative Commons Attribution-NonCommercial-NoDerivs 4.0 International License (CC BY-NC-ND 4.0), which permits the non-commercial replication and distribution of the article with the strict proviso that no changes or edits are made and the original work is properly cited (including links to both the formal publication through the relevant DOI and the license). See: <https://creativecommons.org/licenses/by-nc-nd/4.0/>.

References

1. Levine LA. External devices for treatment of erectile dysfunction. *Endocrine* 2004;23:157-60.
2. Yi M. Penile Support Device, patent, CHN 2017214375933 (2017).
3. Wang H. External penile prosthesis, patent, CHN 002426129 (2001).
4. Stein MJ, Lin H, Wang R. New advances in erectile technology. *Ther Adv Urol* 2014;6:15-24.