The ShangRing™

A Minimally Invasive Disposable Male Circumcision Device

Safe · Simple · Easy · Quick

China SFDA
CE
ISO 13485
FDA

Wuhu SNNDAMedical Treatment Appliance Technology Co., Ltd
Overview

The ShangRing™ is a novel disposable device for male circumcision, manufactured by Wuhu SNNDAMedical Treatment Appliance Technology Co., Ltd, Wuhu, Anhui Province, China. The ShangRing was invented by Mr. Jian Zhong Shang in China. Since 2006, the ShangRing has been safely used to circumcise over 600,000 male adults, adolescents and young boys in both China and Africa. The safety and acceptability of the ShangRing have been clinically evaluated in over 3,000 males as part of formal RCTs and numerous clinical trials. Results in China, Kenya, Zambia and Uganda have clearly demonstrated that the ShangRing is safe, easy to use, time-saving compared to conventional circumcision techniques, and also it has been highly acceptable among service providers and patients in Africa and China. These advantages have accelerated to facilitate rapid scale-up of voluntary medical male circumcision for HIV prevention in Africa and worldwide.

The ShangRing™ has obtained FDA (510K) clearance in the US, and CE Mark from the European Union and ISO 13485 certification. It is simple, small, disposable, and easy to use, providing sutureless circumcision that may be a cost-effective and acceptable alternative to current MC surgical techniques. Video presentations of the ShangRing™ surgical technique have been presented in many international conferences. The video of “Adult male circumcision with the Chinese Shang Ring” was awarded Second Prize at the 2010 American Urological Association (AUA) Annual Meeting, in San Francisco, California, USA. The video of “A simplified, no flip, ShangRing circumcision technique in adolescents” was awarded First Prize for Technical Achievement at the 2013 Annual Meeting of American Society for Reproductive Medicine (ASRM), in Boston, Massachusetts, USA.

*ShangRing™ is a trademark of Wuhu SNNDAMedical Treatment Appliance Technology Co., Ltd, Anhui, China.*
Surgical Procedures

Shang Ring circumcision

1. Penis measured with special measuring tape
2. Inner ring placed on penis and foreskin edges grasped
3. Foreskin everted over inner ring
4. Outer ring placed
5. Foreskin excised
6. Device in place

Ring removal after 7-10 days

1. Outer ring removed
2. Inner ring pulled back from wound edge
3. Inner ring cut and removed
4. Wound covered for 24 hours
Working Principles

- The foreskin is sandwiched between the inner and outer rings so there is minimal to no bleeding when the foreskin is cut.

Surgical Training

- Good surgical training is important for learning of circumcision with the ShangRing™
- Standardized male circumcision procedure
- Hands-on training
- Disposable foreskin training model

1. Components of the training model
2. Measurement of penile circumference and selection of ring size
3. Placement of the inner ring around the penis at the level of the coronal sulcus
4. Eversion of the foreskin over the inner ring
5. Placement of the outer ring
6. Similar view from left side
7. Similar view from right side
Schematic Diagrams of the ShangRing™ Circumcision

Shang Ring (photo)  Figure 1  Figure 2  Figure 3
Figure 4  Figure 5  Figure 6  Figure 7
Figure 8  Figure 9  Figure 10  Figure 11
Figure 12  Figure 13  Figure 14
Features

- No sutures necessary
- Rapid procedural time (2 to 5 min)
- Less bleeding
- Frenulum is well preserved
- Low complication rate
- Excellent cosmesis
- Easy to teach and learn
- High satisfaction among medical providers and patients

ShangRing™ Technique

Suture Technique
Five (5) Registered RCT and Clinical Trials in Africa

ClinicalTrials.gov Identifier: NCT00993811
- **The Shang Ring: A Novel Male Circumcision Device for HIV Prevention**
  Locations: Kenya

ClinicalTrials.gov Identifier: NCT01247844
- **Evaluation of Healing at Three Time Intervals and Potential for Spontaneous Detachment**
  Locations: Kenya

ClinicalTrials.gov Identifier: NCT01300910
- **Comparison of the Shang Ring with Conventional Surgical Methods**
  Locations: Kenya, Zambia

ClinicalTrials.gov Identifier: NCT01567436
- **A Prospective Field Study: Introducing the Shang Ring in Routine Clinical Settings**
  Locations: Kenya, Zambia

ClinicalTrials.gov Identifier: NCT01757938
- **Randomized Control Trial of Shang Ring versus Forceps-guided Adult Male Circumcision in Southwestern Uganda.**
  Locations: Uganda
Results of RCTs and clinical studies in Africa were evaluated by WHO/TAG in 2013.
Selected Publications in Peer-reviewed Journals

Selected Clinical Trials and RCT Articles


- **Field study of adult male circumcision using the Shang Ring in routine clinical setting in Kenya and Zambia.**
  
  JAIDS, Accepted in 18 June, 2014


- **Randomized controlled trial of the shang ring versus conventional surgical techniques for adult male circumcision: safety and acceptability.**
  
  
  PMID: 24583615.


- **The acceptability and safety of the Shang Ring for adult male circumcision in Rakai, Uganda.**
  
  
  PMID: 23614991; PMCID: PMC3805675.


- **The Shang Ring device for adult male circumcision: a proof of concept study in Kenya.**
  
  
  PMID: 21346586


- **Randomized trial of the Shang Ring for adult male circumcision with removal at one to three weeks: delayed removal leads to detachment.**
  
  
  PMID: 22343180

- **The Acceptability and Safety of the Shang Ring for Adult Male Circumcision in Rakai, Uganda.**  
  J Acquir Immune Defic Syndr. 2013 Apr 22. [Epub ahead of print]  
  PMID: 23614991

Sokal D, Barone M, Li PS, Simba R, Awori Q, Bowa K, Zulu R.

- **Minimally invasive male circumcision.**  
  J Acquir Immune Defic Syndr. 2012 Apr 15;59(5):e100; author reply e100-1.  
  PMID: 22410869


- **A recommendable standard protocol of adult male circumcision with the Chinese Shang Ring: outcomes of 328 cases in China.**  
  PMID: 19694369


- **Clinical application of a new device for minimally invasive circumcision.**  
  PMID: 18385906

Peng YF, Yang BH, Jia C, Jiang J.

- **Standardized male circumcision with Shang Ring reduces postoperative complications: a report of 351 cases.**  
  PMID: 21218635

Li HN, Xu J, Qu LM.

- **Shang Ring circumcision versus conventional surgical procedures: comparison of clinical effectiveness.**  
  PMID: 20626160
Yan B, You H, Zhang K, Tang HY, Mao W, He GH, Yin ZG.

- **Circumcision with the Chinese Shang Ring in children: outcomes of 824 cases.**
  PMID: 20369555

**Selected Research Reviews & Special Reports**

Masson P, Li PS, Barone MA, Goldstein M.

- **The Shang Ring device for simplified adult circumcision.**
  PMID:20938437

Kim HH, Li PS, Goldstein M.

- **Male circumcision: Africa and beyond?**
  PMID:20844437

Barone MA, Li PS, Awori QD, Lee R, Goldstein M.

- **Clinical trials using the Shang Ring device for male circumcision in Africa: A review.**

Cheng F, Lü NQ, Xu HQ, Barone MA, Lee R, Goldstein M, Li PS.

- **Clinical studies of Shang Ring male circumcision in China and Africa.**
  PMID: 24873152.

Lü NQ, Li PS, Huang YF.

- **Potential impact of the male foreskin status on cervical HPV infection in his female partner.**
  PMID:23297492
Lü NQ, Gu YQ, Xia SJ, Wang YF, Li PS.

- **Long-term benefits of male circumcision for reproductive health in China.**

Lü NQ, Li PS, Sokal D, Cheng Y, Peng YF, Barone M, Huang YR, Goldstein M.

- **Progress in the clinical studies of male circumcision using the Shang Ring.**

Li PS, Lü NQ, Masson P, Huang YF, Sun YH.

- **Adult male circumcision for military men: history and future.**

Ben KL, Xu JC, Lu L, Lü NQ, Cheng Y, Tao J, Liu DK, Min XD, Cao XM, Li PS.

- **Male circumcision is an effective "surgical vaccine" for HIV prevention and reproductive health.**


- **The need for high-quality training and surgical standards for adult male circumcision in China.**

Lu NQ, Li PS, Huang YR.

- **An innovative male circumcision technique in China and HIV prevention.**
Selected Oral and Abstract Poster Presentations


- **Men's understanding of and experiences during the post-circumcision abstinence period: results from a field study of ShangRing circumcision during routine clinical services in Kenya and Zambia**


  TUPE137 Abstract

- **Surgical outcomes of newly trained Shang Ring VMMC providers**


  TUPE144 Abstract

- **Use of the Shang Ring for male circumcision in boys in Kenya: results from a pilot study**


  TUPE145 Abstract

- **The acceptability and safety of the shang ring for adolescent male circumcision in Rakai, Uganda**


  TUPE148 Abstract

- **A field study of male circumcision using the Shang Ring, a minimally-invasive disposable device, in routine clinical settings in Kenya and Zambia.**

- **The acceptability and safety of the Shang Ring for adult male circumcision in Rakai, Uganda.**

- David Sokal, Mark Barone, Raymond Simba, Quentin Awori, Kasonde Bowa, Robert Zulu, Peter Cherutich, Nicolas Muraguri, John Masasabi Wekesa, Paul Perchal, Prisca Kasonde, Stephanie Combes, Catherine Hart, Puneet Masson, Richard Lee, Marc Goldstein, and Philip S. Li.

- **Randomized Controlled Trial of the Shang Ring Versus Conventional Techniques for Adult Male Circumcision.**

- Puneet Masson, Yue Cheng, Yi-Feng Peng, Long Tian, Yi-Dong Liu, Nian-Qing Lü, Richard Lee, Howard H. Kim, David Sokal, Philip S. Li, Marc Goldstein

- **Adult Male Circumcision with the Chinese Shang Ring.**


- **Spontaneous Detachment of the Shang Ring following Adult Male Circumcision.**
  TUPE385 - Poster Exhibition, 6th IAS Conference on HIV Pathogenesis, Treatment and Prevention, 17-20 July 2011 - Rome, Italy.
The Shang Ring for adult male circumcision: Evaluation of healing at three time intervals.

M.A. Barone, DVM, MS; F. Ndede, MB ChB, MMed; P.S. Li, MD; P. Masson, MD; P. Cherutich, MB ChB, MPH; N. Muraguri, MB ChB, MPH; J.M. Wekesa MB ChB, MMed; P. Perchal, MA; M. Goldstein, MD

The Shang Ring: A novel device for adult male circumcision.

Mark A. Barone, DVM, MS

**Videos**

- **The Shang Ring Circumcision**
  
  https://www.youtube.com/watch?v=-j3SoMiwRHI
  http://shangring.cn/downloadcenter/Shang_Ring_Male_Circumcision-2010_AUA_Second_Prize_Video.flv

- **The Shang Ring Circumcision Device A Big Hit in Homa Bay, Kenya**
  
  https://www.youtube.com/watch?v=Hhohli3CLUc
  http://shangring.cn/downloadcenter/Circumcision_device_a_big_hit_in_Homabay.avi

- **IAS 2013: Male Circumcision Using the Shang Ring**
  
  http://shangring.cn/news/IAS2013_Interview_with_Dr_Mark_Barone_Male_Circumcision_Using_the_Shang_Ring_video.html

- **A Simplified, No Flip, Shang Ring Circumcision Technique in Adolescents**
  
  https://www.youtube.com/watch?v=MjJIQgU4HDw
  http://shangring.cn/downloadcenter/NFSRASRM2013.avi
Related Intellectual Property and Licensing for Production and Sales

- **Patents issued and pending in China**
  - 15 Invention patents
  - 95 Utility model patents
  - 5 Design patents

- **International patents issued and pending**
  - 110 Countries and regions

- **Trademarks**
  - 110 Countries and regions

- **SFDA**

- **ISO 13485**

- **CE**

- **FDA 510(k) clearance**
In the 2012 annual letter for the Bill and Melinda Gates Foundation, the ShangRing™ was cited as one of the innovative male circumcision devices that is expected to have a significant impact in reducing the number of new HIV infections in Africa.
At Stanford, Bill Gates says foreign aid is threatened, but big ideas can turn the tide

Scientists and engineers, Bill Gates said, need to focus on developing products that help improve the lives of the world's poor even though the market directs people to help the wealthiest.

By Brooke Donald


He also cited research showing that the risk of acquiring HIV goes down among men who are circumcised, and described a newly developed plastic ring to make the procedure easier and less expensive for teenagers and adults. "It is a fantastic development. It's just plastic, it's very cheap," he said. "It reduces the pain involved, it reduces the cost involved, very straightforward." During his lecture, Mr. Gates demonstrated the ShangRing™ device (see picture).

Mr. Bill Gates meets with Mr. Jian-Zhong Shang, the inventor of ShangRing™

【Gates Foundation-Beijing, May 29, 2012】 Mr. Bill Gates meets with Mr. Jian-Zhong Shang, the inventor of ShangRing™, in Beijing, China. The work with the ShangRing™ in Africa and China were cited by Mr. Gates. He shared his recent exciting experience in Lusaka, Zambia, where he had a chance to observe ShangRing™ male circumcision and meet many of the ShangRing™ circumcision providers.
Contact Information

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