

## Reply to invited comment on “Partial stapled hemorrhoidopexy versus circular stapled hemorrhoidopexy for grade III–IV prolapsing hemorrhoids: a two-year prospective controlled study” by I. Khubchandani

D.-L. Ren · H.-C. Lin

Received: 7 June 2012 / Accepted: 27 June 2012  
© Springer-Verlag 2012

Dear Sir,

We appreciate the opportunity to respond to the letter by Dr. Khubchandani. Based upon the comment from Dr. Khubchandani, we are pleased to find a very thorough colorectal specialist with acute eyesight and cautious support for a novel technique.

Circular stapled hemorrhoidopexy (CSH), which has gained wide popularity since 1998 because of its efficacy and the low postoperative pain associated with the technique [1], was adopted by more and more proctologists to treat prolapsing hemorrhoids. According to our estimate, about 20,000 cases of PPH were treated in China each year. However, potential complications including rectovaginal fistula and anal stenosis cannot be avoided completely, whereas life-threatening severe complications are increasingly reported [2]. The need to improve the results of this stapled technique led surgeons to develop a modified technique, even a novel technique. The idea of tissue-selecting technique (TST), namely partial stapled hemorrhoidopexy, is aimed at overcoming the weakness and limitations of CSH.

Anal stenosis after CSH was often encountered in clinical practice. Some of these cases may be attributed to surgical error such as removal of large areas of anoderm. However, even an experienced surgeon with meticulous technique will also find that a little anal stricture develops in some patients after this circular technique. It will not always be due to surgical error and may be due to the fact

that full circumference of the rectal mucosa is affected. TST gets partial circumference anastomosis to avoid anal stenosis and spares the rectal wall adjacent to the vagina to avoid rectovaginal fistula completely by using our specially designed anoscope in female patients.

Further clarifications of the “mucosal bridge” in our article are required. Actually, after the stapler in TST is fired and gently withdrawn, a minimal mucosal bridge with some staples connecting the two edges of the mucosectomies (Fig. 1), like in the case of STARR, was found and dissected using electrocautery. Due to the protection by the spatula of the tri-window anoscope, a mucosal bridge, consisting of normal rectal mucosa, was spared (Fig. 2). Because of the preservation of partial of rectal wall between mucosectomies, a better rectal compliance was maintained and this resulted in less damage to anorectal function.

CSH has the same safety and efficacy as conventional hemorrhoidectomy, and this could account for the widespread adoption of CSH. Nevertheless, few studies have been performed investigating the potential influence on the anorectal function and the mechanism of postoperative outcomes including pain, fecal urgency, and anal stenosis after CSH. Our preliminary study on TST has demonstrated that this modified technique is associated with good anorectal function including fewer episodes of urgency and no anal incontinence or anal stenosis [3]. Nevertheless, randomized controlled trials that compare the TST and CSH procedures are required to confirm the results of this preliminary trial.

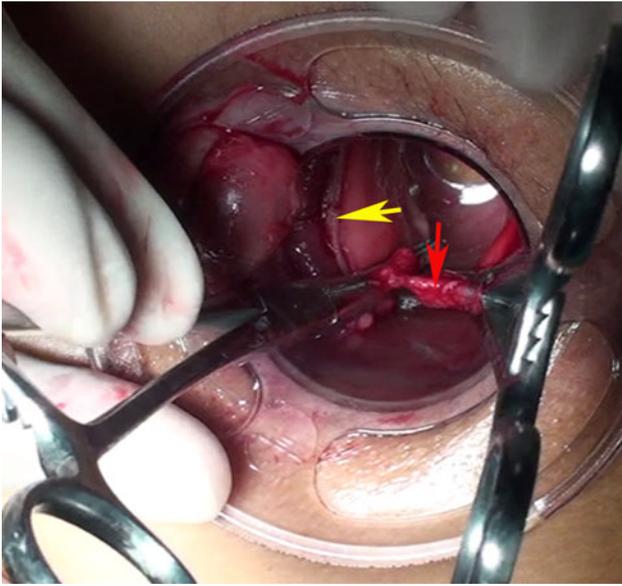
Damage to the healthy tissue should be lessened on the condition that therapeutic efficacy is guaranteed. TST is designed to treat prolapsing hemorrhoids with minimal damage to the normal tissue. This is the fundamental idea of TST. Any new approach, first introduced into clinical

---

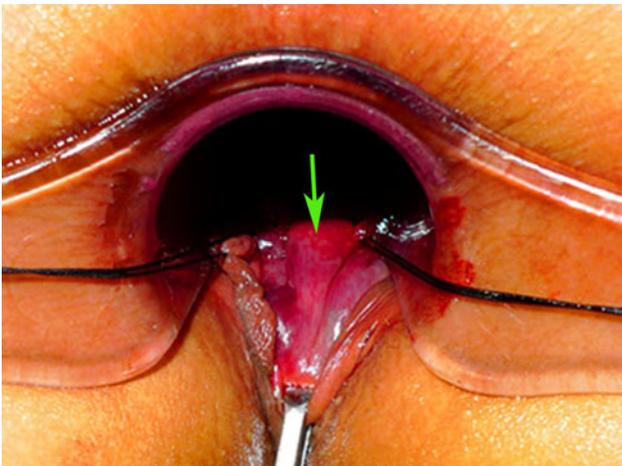
This reply refers to the comment available at  
doi:[10.1007/s10151-012-0866-x](https://doi.org/10.1007/s10151-012-0866-x).

---

D.-L. Ren (✉) · H.-C. Lin  
The Sixth Affiliated Hospital of Sun Yat-sen University  
(Gastrointestinal and Anal Hospital), Guangzhou, China  
e-mail: [dredifice1983@yahoo.com.cn](mailto:dredifice1983@yahoo.com.cn)



**Fig. 1** A minimal mucosal bridge (*red arrow*) with some staples connecting the two edges of the mucosectomies was found and dissected using electrocautery. The *yellow arrow* indicates the staple line



**Fig. 2** The *green arrow* indicates a mucosal bridge (normal rectal mucosa) between the mucosectomies

practice, is usually never at its best and always gives rise to dispute and questions. TST is no exception and we expect continual improvement of the technique in the future. Although ultimately time will tell whether TST is widely adopted, at present the future of TST appears very promising.

**Conflict of interest** The authors declare that no conflict of interest exists.

## References

1. Shao WJ, Li GC, Zhang ZH, Yang BL, Sun GD, Chen YQ (2008) Systematic review and meta-analysis of randomized controlled trials comparing stapled haemorrhoidopexy with conventional haemorrhoidectomy. *Br J Surg* 95:147–160
2. Pescatori M, Gagliardi G (2008) Postoperative complications after procedure for prolapsed hemorrhoids (PPH) and stapled transanal rectal resection (STARR) procedures. *Tech Coloproctol* 12:7–19
3. Lin HC, Ren DL, He QL et al (2012) Partial stapled hemorrhoidopexy versus circular stapled hemorrhoidopexy for grade III-IV prolapsing hemorrhoids: a two-year prospective controlled study. *Tech Coloproctol*. doi:10.1007/s10151-012-0815-8. PMID: 22402919