

## Pyloric sphincter reconstruction in Billroth I gastrectomy

Hong-Yun Peng, Min Xie, Meng-Long Wang, Lin-Quan Wu, Xiao-Yun Hu, Shi-Yuan Lou, Lin Xin, Xiao-Qiang Jiang, Yong Liu

Hong-Yun Peng, Min Xie, Meng-Long Wang, Lin-Quan Wu, Xiao-Yun Hu, Shi-Yuan Lou, Lin Xin, Xiao-Qiang Jiang, Yong Liu, Department of General Surgery, the 2<sup>nd</sup> Hospital, Jiangxi Medical College, Nanchang 330006, Jiangxi Province, China

Author contributions: All authors contributed equally to the work.

Supported by The Science Fund of Jiangxi Province Health Bureau, No. 93-52.

Correspondence to: Dr. Hong-Yun Peng, Department of General Surgery, the 2<sup>nd</sup> Hospital, Jiangxi Medical College, No. 56 Bayi Road, Nanchang 330006, Jiangxi Province, China. Penghoy@163.net  
Telephone: +86-791-6291195/6271749

Received: December 27, 1999

Revised: March 20, 2000

Accepted: July 10, 2000

Published online: September 15, 2000

### Abstract

**AIM:** To search for a new surgical method which accords with physiologico-anatomical principles, reduce the incidence rate of some postoperative complications in conventional Billroth I (CB1) gastrectomy and raise the life quality of patients after surgery.

**METHODS:** Using the blood vessels and innervation of the remaining stomach and duodenum, we designed a new pyloric sphincter reconstruction (PSR) in Billroth I gastrectomy, in which the end of

the duodenum remnant is surrounded by the seromuscular valve of 2 cm wide in the end of the greater curvature, thickened the muscle of the stoma and reconstructed a similar pylorus with the sphincteric function.

**RESULTS:** Eleven patients were treated, 8 males and 3 females, 6 malignant and 5 benign and 1 accompanied by mould infection, aged from 33 to 73 years, with 1 to 29 years of gastric disease history (average 7.9 years). The function of gastric emptying was shown to be essentially normal by barium meal study with video record one month after the operation. The pyloric-like control effect was present in the reconstructive pylorus. PSR vs CB1 vs NES ( $P > 0.01$ ); PSR vs CB1 ( $P < 0.01$ ); PSR vs NSE ( $P > 0.05$ ).

**CONCLUSION:** The new method of pyloric reconstruction is safer, simpler and more effective than conventional procedures. This method can be applied to all patients for whom Billroth 1 anastomosis can be performed regard less of benign or malignant lesion.

**Key words:** Pyloric sphincter reconstruction; Gastrectomy/method; Case report

© The Author(s) 2000. Published by Baishideng Publishing Group Inc. All rights reserved.

Peng HY, Xie M, Wang ML, Wu LQ, Hu XY, Lou SY, Xin L, Jiang XQ, Liu Y. Pyloric sphincter reconstruction in Billroth I gastrectomy. *World J Gastroenterol* 2000; 6(Suppl3): 67 Available from: URL: <http://www.wjgnet.com/1007-9327/full/v6/iSuppl3/67.htm> DOI: <http://dx.doi.org/10.3748/wjg.v6.iSuppl3.67>

E- Editor: Zhang FF



Published by **Baishideng Publishing Group Inc**

8226 Regency Drive, Pleasanton, CA 94588, USA

Telephone: +1-925-223-8242

Fax: +1-925-223-8243

E-mail: [bpgoffice@wjgnet.com](mailto:bpgoffice@wjgnet.com)

Help Desk: <http://www.wjgnet.com/esps/helpdesk.aspx>

<http://www.wjgnet.com>

