



# Perineum Push-up Device to Facilitate Transabdominal Suturing of the Lower Rectum

Arun Rojanasakul MD\*, Chuchee Sahakitrungruang MD\*,  
Jirawat Pattan-arun MD\*, Kasaya Tantiphlachiva MD\*

\* Division of Colon and Rectum Surgery, Department of Surgery, King Chulalongkorn Memorial Hospital

*Pressure on the perineum by the fist facilitates the placement of sutures into the rectal remnant, but put the assisting surgeon on an awkward and strenuous posture. The perineum push-up device to facilitate transabdominal suturing of the lower rectum was invented. The assisting surgeon can push up the perineum more comfortably with his abdominal wall or thigh. The device was tested in fifteen patients. The average distance that can be pushed up is 4.2 cm, which is a significant distance, facilitating in the maneuver of the distal rectal stump.*

**Keywords:** Rectal anastomosis, Perineum push-up device

**J Med Assoc Thai 2005; 88(Suppl 4): S376-7**

**Full text. e-Journal:** <http://www.medassothai.org/journal>

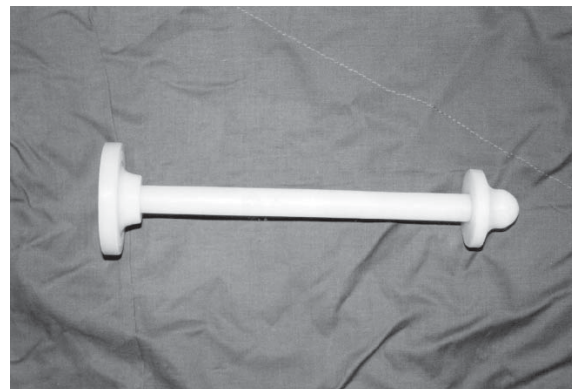
The placement of sutures into the remnant of the distal rectal stump deep down in the pelvic cavity such as in the hand-sewn anastomosis following low anterior resection and hand-sewn whipstitch in low anterior resection with stapler anastomosis is a difficult procedure, resulting in imperfection of the anastomosis in a number of cases. Marvin L. Corman M.D. wrote in his book "pressure on the perineum by the fist facilitates the placement of sutures into the rectal remnant", however the drawback of fist-pushing of the perineum is that the assisting surgeon may be in an awkward posture, pressuring the perineum with one hand and holding the abdominal retractor with the other hand. This causes enormous strain and fatigue to the assistant. In some cases the fist cannot push the perineum up because it is larger than the pelvic outlet, especially in obese male.

The authors had invented a device for pushing up the perineum with ease by the assisting surgeon. The appearance of this device is shown in Fig. 1, and its application is shown in Fig. 2. The device is made of light synthetic material.

The head of the device looks like a pacifier which is use to push the anus. The shaft is about 30 cm

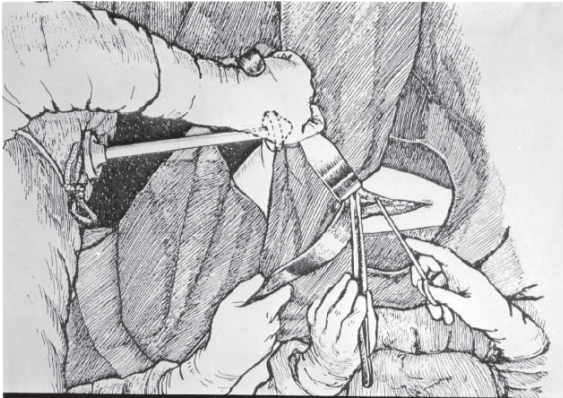
long. The end of the device is flat and round, and is pressed by the abdomen or thigh of the assisting surgeon.

The authors have used this device in fifteen cases of rectal cancer patients during December 2000 to April 2001. The patients were seven males and eight females with the average age of 59. The procedures that we had applied the device were eleven cases of hand-sewn low anterior resection anastomosis, two cases of stapler low anterior resection, one case of distal rectal stump closure, one case of reanastomosis after Hartmann's procedure. The distance that the rectal remnants could be pushed up were four cm in ten



**Fig. 1** Perineum Push Up Device

Correspondence to : Rojanasakul A, Department of Surgery, King Chulalongkorn Memorial Hospital, Rama IV Rd, Patumwan, Bangkok 10330, Thailand. Phone: 0-2256-4117, Fax: 0-2256-4149, E-mail: drerun@hotmail.com



**Fig. 2** Application of Perineum Push Up Device. The assisting surgeon push the base of the device with his abdomen

cases, five cm in three cases, six cm in one case, two cm in one case. The patient whose rectum could be push up for 2 cm was the only case that low anterior resection anastomosis could not be accomplished and was converted to coloanal anastomosis. All of the assisting surgeons who had used this device did not have the discomfort or pain at their abdominal wall. The surgeons were happy with the device and acknowledged that the device facilitated suturing of lower rectum. Until now there was no complication related to the use of this device, and no clinical leakage of the anastomosis was detected in this group of patients.

#### Reference

1. Corman ML. Carcinoma of the Rectum. In: corman ML, ed. Colon & Rectal Surgery. 3rd ed. Philadelphia: JB Lippincott, 1993: 596-720.

### อุปกรณ์ดันทวารหนักเพื่อช่วยในการเย็บทวารหนักส่วนล่างผ่านแผลผ่าตัดหน้าท้อง

อรุณ โรจนสกุล, ชูชีพ สหกิจรุ่งเรือง, จิระวัฒน์ พัฒนะอรุณ, กษยา ดันติผลาชีวะ

**ความเป็นมาและวัตถุประสงค์ :** การผ่าตัดทวารหนักส่วนกลาง (mid rectum) และส่วนปลาย (low rectum) จากแผลผ่าตัดหน้าท้องเป็นหัตถการที่ทำได้ยาก การใช้ก้านของผู้ช่วยผ่าตัดดันจากก้นของผู้ป่วย จะช่วยดันทวารหนักให้สูงขึ้น ในช่องเชิงกรานได้ แต่ผู้ช่วยผ่าตัดจะต้องออกแรงในท่าที่ไม่ถนัดเป็นเวลานาน และช่วยผ่าตัดไม่ได้

**สถานที่ :** หน่วยศัลยศาสตร์ลำไส้ใหญ่และทวารหนัก, ภาควิชาศัลยศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย

**วิธีการและเครื่องมือ :** ผู้รายงานได้ประดิษฐ์อุปกรณ์ช่วยดันทวารหนักทดลองใช้ในผู้ป่วย 15 ราย

**บทสรุป :** เครื่องมือนี้สามารถดันปลายของทวารหนักให้สูงขึ้นเป็นระยะเฉลี่ย 4.2 ซม. ซึ่งช่วยในการผ่าตัดทวารหนักส่วนปลายได้สะดวกขึ้นมาก