Effective Management of Posthemorrhoidectomy Secondary Hemorrhage Using Rectal Irrigation

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PURPOSE: How to manage posthemorrhoidectomy secondary hemorrhage, a rare but serious complication, effectively remains controversial. This study evaluated the effectiveness of using rectal irrigation as an initial treatment for posthemorrhoidectomy secondary hemorrhage. METHODS: Among 4,880 patients on whom elective closed hemorrhoidectomy for symptomatic hemorrhoidal disease was performed, 45 (0.9 percent) developed posthemorrhoidectomy secondary hemorrhage. The 45 patients were divided into two groups based on the initial treatment in the stoma therapy room (n/H1100525) or in the operating room (n/H1100520). Patients in the stoma therapy room group were treated with rectal irrigation, whereas those in the operating room group were examined under anesthesia and the bleeding point (if any) was under-run using a suture. The two groups were then compared with respect to the cost-effectiveness of treatment, rehospitalization stay, and satisfaction with treatment. RESULTS: The two groups (stoma therapy room vs. operating room groups) were comparable with respect to the mean age of patients (44 vs. 38 years), interval of hemorrhage (9.4 vs. 7.8 days), and estimated amount of blood loss (560 vs. 520 ml). Bleeding effectively stopped in 22 (88 percent) patients in the stoma therapy room group but only in 12 (60 percent) patients in the operating room group (P/H110050.010). The rehospitalization stay was three days in the stoma therapy room and 4.9 days in the operating room group (P/H110050.016). In addition, the stoma therapy room group had a greater satisfaction rate than the operating room group did (80 vs. 10 percent, P/H110050.001). Moreover, the average cost of treatment in the operating room group was six-fold higher than that in the stoma therapy room group. CONCLUSIONS: Our data suggest that rectal irrigation is an effective initial treatment for posthemorrhoidectomy secondary hemorrhage and offers a high rate of patient satisfaction with a reduced hospital cost. [Key words: Hemorrhoidectomy; Secondary hemorrhage; Posthemorrhoidectomy hemorrhage; Rectal irrigation]


Posthemorrhoidectomy secondary hemorrhage (PHSH) is a rare but widely recognized postoperative complication of hemorrhoidectomy. Occurring several days after operation in 0.6 to 5.4 percent of cases,1–7 if undetected or not promptly treated, it may be life-threatening because of cardiovascular decompensation with circulatory collapse. The treatment of PHSH is controversial. In 1922 Burrows and Burrows8 first described using a rectal packing to stop the bleeding. Since then, other rectal compression devices, such as a rectal pack,9 plug,10 or Gelfoam® (Pharmacia & Upjohn, Kalamazoo, MI),11 have also been advocated. These obstructing devices are painful, and an extended hospital stay is necessary for closer observation. More recently, some authors suggest to examine these patients under anesthesia (EUA) in the operation room (OR) as an initial treatment. After removing the clotted blood by irrigation with saline, the bleeding point(s) can be observed using a anoscope and under-run by a suture with or without coagulation.12 Nevertheless, the above-mentioned remedies have their limitations. In a related study 15 percent of these patients developed late complications and needed reoperation from either the initial suture-ligation or rectal packing.12

Having found rectal irrigation to be a tolerable and effective alternative management of PHSH in a preliminary report,13 we initiated this prospective study to compare rectal irrigation to EUA as an initial treatment for PHSH with respect to effectiveness and patient satisfaction.

PATIENTS AND METHODS

Data Source

Between January 1994 and July 1996, 4,880 consecutive patients with symptomatic hemorrhoids received a closed hemorrhoidectomy by one of nine
proctologists at Linkou Chang Gung Memorial Hospital, a medical center that offers a mixture of primary, secondary, and tertiary care services. After hospital discharge patients were instructed to go to the emergency department (ER) if they noticed a trickle of dark and/or fresh blood from the anus or passed large amounts of clotted blood. At the ER, after initial resuscitation, the complication was confirmed by a rectal examination. Then, specific history of the timing and amount of the episodic bleeding was recorded. The amount of bleeding was estimated by asking the patient (using a Chinese rice bowl (220 ml) as a measure) or was measured at the ER if the bleeding was persistent.

Inclusion and Exclusion of Cases

To exclude cases with minimal and self-stop bleeding after straining and cases with reactionary hemorrhage because of bleeding as a result of slipped ligation, only cases fulfilling the following criteria for PHSH were included: 1) an interval from operation to hemorrhage of more than 24 hours; 2) evacuation of more than 200 ml blood or clot via the anus at one time; and 3) bleeding confirmed by a rectal examination.

Treatment Protocol

When the diagnosis of PHSH was made, and intravenous saline resuscitation was administered. Blood transfusion was optional. When the vital signs of the patient were stable, the patient was sent to the stoma therapy (ST) room for rectal irrigation or to the OR for examination under anesthesia, which was the operator’s preference. Four of the nine proctologists used EUA in the OR, whereas the others preferred rectal irrigation at the stoma therapy ST room as the initial treatment for PHSH. In the OR suture-ligation with or without coagulation was performed if there was an active bleeder. The patient at the ST room was placed in the lithotomy position. Using a slender irrigation tube with double lumens (diameter of inner tube, 0.4 cm; outer tube, 0.7 cm), rectal irrigation was performed until the washout became clear, which suggested no evidence of active bleeding. Because the procedure was relatively painless, no anesthetics or narcotics were administered. If fresh red blood was persistent in the washout, the patient would be sent to the operation room for examination under anesthesia. The patient was then admitted to the ward for close observation. The patient would resume oral intake after the first bowel movement and was discharged if no evidence suggested further bleeding. All of the patients were followed up at the outpatient department (OPD) until the wound was healed.

Effectiveness Evaluation

Effectiveness was evaluated as the success rate of the initial treatment. The cost evaluation included the days of hospital stay, total cost of hospitalization, and patient satisfaction. A nurse specialist interviewed these patients on a telephone visit after their hospital discharge or at OPD. Patient satisfaction with treatment on a four-point scale (very satisfied, satisfied, unsatisfied, and very unsatisfied) as well as other complications detected at the OPD were recorded.

Statistics

All data are presented as mean ± standard deviation. The paired-sample t-test, chi-squared test, or Fisher’s exact probability test, as appropriate, was used to compare differences between groups. A P value < 0.05 was considered statistically significant. All analyses were performed with use of the statistical package SPSS® (Release 8.0, SPSS® Inc., Chicago, IL).

RESULTS

The two groups did not significantly differ with respect to gender, age, interval from the time of operation to hemorrhage, estimated amount of blood loss, systolic blood pressure, pulse rate, hemoglobin, or hematocrit levels at the time of diagnosis (Table 1). Among 25 patients in the stoma therapy room (RI) group, 3 (12 percent) had persistently active bleeding during rectal irrigation in the ST room. All three patients were sent to the operating room. One patient had no discernible bleeding, whereas two had an active bleeder requiring a suture ligation. Among the 20 patients in the OR group, 12 (60 percent) had no discernible bleeding and 8 (40 percent) patients had oozing or a bleeder requiring a suture ligation or electrocoagulation. No rebleeding took place in any of the 45 patients.

Table 2 reveals that the OR group had a much greater cost (6.3-fold more than that of the RI group, P < 0.001) as well as a longer hospital stay (1.6-fold, P = 0.016). Patients in the RI group had a greater rate of satisfaction (P < 0.001). During fol-