

Haemorrhoidectomy: Avoiding tamponade leads to pain reduction in clinical randomised trial.

¹M.R. Langenbach, ¹S. Chondros, ^{2/3}S. Sauland

¹ HELIOS St. Elisabeth Klinik, Josefstraße 3, 46045 Oberhausen; Department of Surgery II University Witten/Herdecke, Germany · ² Institute for Research in Operative Medicine, University of Witten/Herdecke, Germany · ³ Institute for Quality and Efficiency in Healthcare (IQWiG), Cologne, Germany

Background

Bleeding after haemorrhoidectomy is common. Many surgical textbooks recommend insertion of an anal tampon in order to reduce postoperative bleeding. This practice, however, is bothersome and painful for patients and has never been validated in a randomized controlled trial.

Methods

The study included 100 patients who were scheduled for Milligan-Morgan haemorrhoidectomy. During surgery, patients were randomly assigned to receive or not to receive an anal tampon at the end of the procedure. Data on pain, complications and wound care were collected. The trial was registered (DRKS00003116) and all analyses were by intention-to-treat.

Statistical Analysis:

Using a 5% significance level with a two-sided Student's t-test with a power of 90%, we estimated that a sample size of 100 patients was required on the assumption of a pain score difference of 2 and a standard deviation of 3. The trial's primary hypothesis of a difference in NRS pain data was tested by using Student's t-test for independent samples. Other between-group comparisons were performed with Fisher's exact test, 2-test, analysis of variance (ANOVA) or again Student's t-test. Continuous data are expressed as means ± standard deviations.

Results

There were 48 patients in the group with tamponade, and 52 patients were left without tamponade. The trial's primary outcome, maximum pain intensity, averaged 6.1 and 4.2 in the two groups ($P=0.001$). In the group with tamponade, a complication was recorded in 7 patients (15%), which was similar to the group without tamponade (21%). Severe anal bleeding occurred in 2 and 5 patients, respectively. Bandage changes were necessary less often in the group treated without tamponade ($P=0.013$). Hospital stay was 4 days in both groups.

Conclusions

Our data indicate using a tamponade after haemorrhoidectomy is an historical surgical procedure that should be avoided because it causes significant pain and provides no advantages for the patients.

Fig 1: Intention to treat

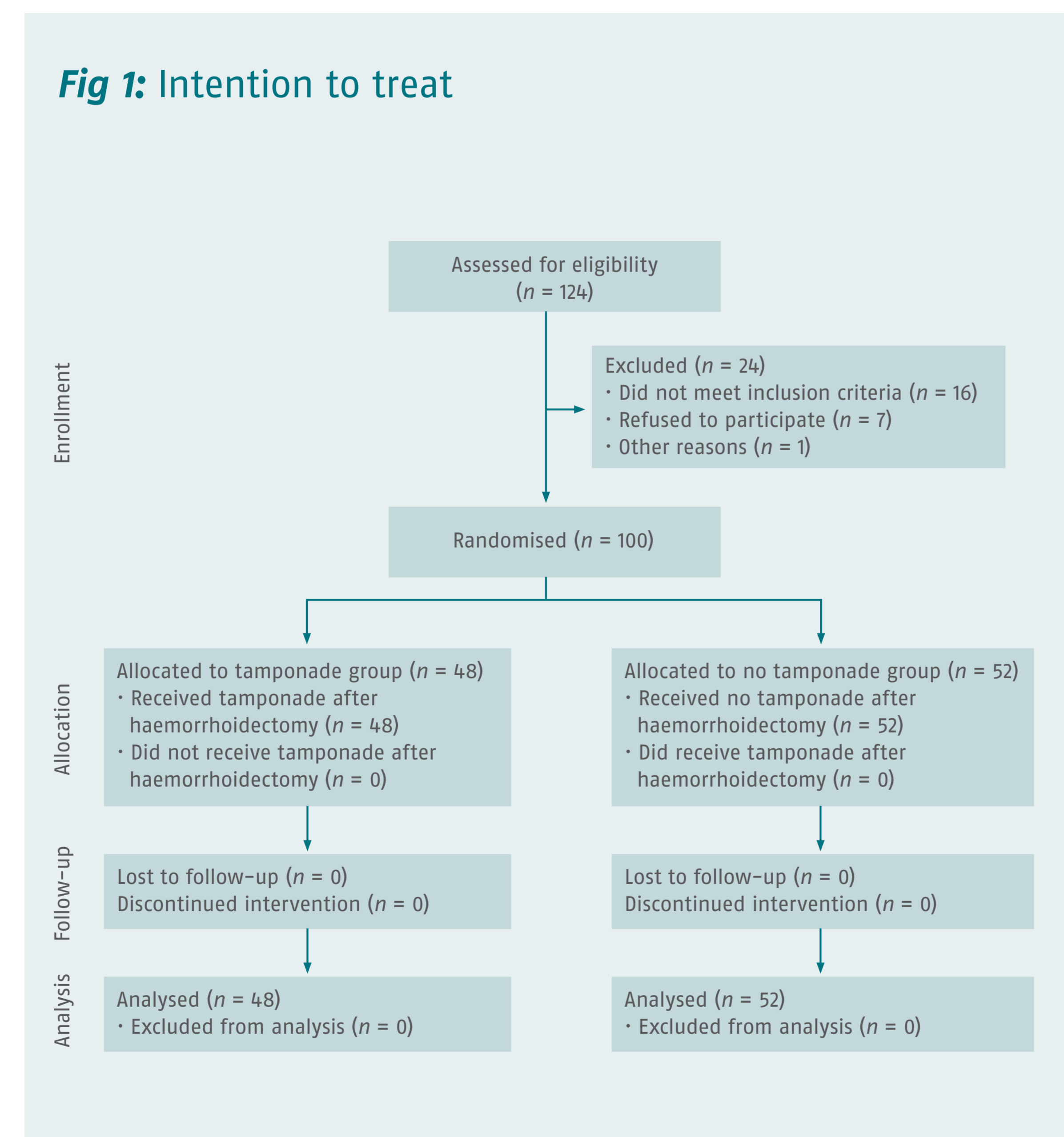


Table 1: Demographic baseline characteristics

	With tamponade	Without tamponade
No. of patients	48	52
Men/Women	30/18	27/25
Age (years)	51.6 ±17.5	53.9 ±15.8
Body mass index (kg/m ²)	28.6 ±6.2	26.5 ±4.3
Systolic blood pressure (mm HG)	135 ±13	130 ±13
ASA score		
1	20 (42%)	21 (40%)
2	23 (48%)	31 (60%)
3	5 (10%)	0
Degree of haemorrhoids		
3 rd	10 (21%)	7 (14%)
3 rd to 4 th	2 (4%)	4 (8%)
4 th	36 (75%)	41 (79%)
Anal pain within last three months		
None	13 (27%)	17 (33%)
Intermittent	22 (46%)	25 (48%)
Permanent	13 (27%)	10 (19%)
Anal pruritus within last three months		
None	20 (42%)	32 (62%)
Intermittent	21 (44%)	15 (29%)
Permanent	7 (15%)	5 (10%)
Previous proctologic intervention	17 (35%)	18 (35%)
Pain medication for comorbid condition	2 (4%)	4 (8%)

Table 2: Treatment results

	With tamponade	Without tamponade	P value
Duration of surgery (minutes)	23.8 ±7.4	21.3 ±7.7	0.103
Number of haemorrhoids resected			0.241
1	9 (19%)	18 (35%)	
2	20 (42%)	15 (29%)	
3	19 (40%)	19 (37%)	
Maximum pain intensity (0 to 10)	6.1 ±2.5	4.2 ±2.8	0.001
Number of bandage changes	3.9 ±2.7	2.7 ±1.7	0.013
Length of stay (days)	3.9 ±1.7	3.6 ±1.3	0.251

Table 3: Complications

	With tamponade	Without tamponade	P value
Number of patients with a complication	7* (15%)	11* (21%)	0.444
Severe anal bleeding	2	5	
Postoperative nausea or vomiting	1	3	
Urinary retention	3	0	
Diagnostic rectoscopy	1	1	
Perianal swelling	0	1	
Constipation	0	1	
Prolonged shivering	0	1	
Anal carcinoma	1	0	