

## Clinical Use of Diosmin (Daflon 500) for treatment of Symptoms after Haemorrhoidectomy

Muhammad Farooq Umer , Syed Hussain Mehdi , Abdullah-el-Muttaqi , Syed Muhammad Ashraf , Irfan Sheikh , Marvi Mahar

### Abstract

**Objective:** To evaluate the role of diosmin (Tab Daflon 500mg) in post haemorrhoid pain and bleeding.

**Design:** Prospective and observational study.

**Setting and duration:** Department of Surgery, Jinnah Medical College Hospital from October 2010 to March 2012.

**Methodology:** A total 64 patients were included in this study. Inclusion criteria was patient above 18 years with symptomatic late 2nd degree, 3rd degree and 4th degree haemorrhoids. Exclusion criteria were inflammatory bowel disease and bleeding diathesis. All patients undergone Milligan Morgan haemorrhoidectomy and were give Tab Dafflon 500mg 2 Tab TDS. Post operative pain bleeding and discharge was assessed using verbal response for pain bleeding as minor, moderate and severe grades.

**Results:** On first post operative day maximum number of patients (50 %) observed mild pain. (28 %) patients complained moderate pain on 2nd post op day pain was mild (70.3 %). At the end of first week (84.3 %) patients were pain free. Regarding bleeding minor bleeding was noted in (90.6 %) patients. At the end 1st week only (6.2 %) reported minor bleeding.

**Conclusion:** Diosmin (Daflon 500mg) has a definite role in reducing the Severity and duration of post haemorrhoid pain, bleeding and discharge

**Keywords:** 3rd degree haemorrhoids, Milligan Morgan haemorrhoidectomy, Post haemorrhoidal pain, Daflon

### Introduction:

Haemorrhoid is one of the most common ano-rectal disorders. Haemorrhoid are a mass of dilated tortuous veins in the anorectum involving the venous plexus of the area<sup>1</sup>. These swollen, inflamed veins and pad of fat around it can ache and bleed. Although haemorrhoidectomy is considered as a minor inpatient procedure, it is usually associated with significant post operative complications, including pain, bleeding, heaviness, pruritis, mucosal discharge and anal stenosis, resulting in a protracted period of recovery.

The traditional Milligan Morgan operations are still the most used and effective approaches for patients with symptomatic haemorrhoids of 3rd

and 4th degrees.<sup>2</sup>

The procedure is usually associated with considerable pain, bleeding and mucosal discharge after operation,<sup>3</sup> which seems to be multifactorial, such as individual tolerance, mode of anaesthesia postoperative analgesics, and surgical technique. Two predominant factors responsible for post operative pain include discomfort from the surgical wound in the sensitive anoderm as well as perianal skin and edema from tissue inflammation around the wound. Postoperative bleeding is another important complication in haemorrhoids due to its frequency, which varies between 0.6 % and 10%.<sup>4,5</sup> Diosmin, flavonoidic fraction derived from some plant is promoted as a high quality active ingredient in vein improve-

Department of Surgery,  
Jinnah Medical College  
Hospital, Karachi

MFUmer  
SHMehdi  
A el-Muttaqi  
SMAshraf  
I Sheikh  
M Mahar

### Correspondence:

Prof Muhammad Farooq  
Umer  
Department of Surgery  
Jinnah Medical College  
Hospital  
SR-6, Sec 7-A Korangi,  
Ind. Area Karachi  
Cell: 0300-8267589  
Email. drfarooq@live.com

ment suppliments. Disosmin reduces inflammation and increases vein tonicity, two important factors that contibute to haemorrhoids. Diosmin also appears to significantly shorten the duration of haemorrhoid bleeding as well as reduce the postoperative pain.<sup>5</sup> This study was designed to evalute the influence of diosmin in reducing post operative pain, bleeding and mucosal discharge after the Milligan Morgan open haemorrhoidectomy.

**Material & Methods:**

This study was conducted in the Department of Surgery Jinnah Medical College Hospital during the period of one and half year from October 2010 to March 2012. A total 64 patients were included in this study regardless of sex. Inclusion crieteria was adult patients above 18 years of age with symptomatic late 2nd , 3rd and 4th degree haemorrhoids were included in this study. Exclusion crieteria was patients below 18 years of age, inflammatory bowel disease, cirrhosis, bleeding diathesis associated fistula in ano and previous history of surgery.

Demographic data, disease grades, preoperative constipation status, mean duration of disease operating time and number of resected piles were recorded for each patients. All patients were subjected to few baseline investigations like CBC, PT & APTT, Urine DR, UCE and Hep B, C status. Informed consent was obtained from all patients. The whole study consisted of two periods of observation (4 weeks for each period) the last visit should be terminated in 90 days after operation. All patients undergone Milligen Morgan haemorrhoidectomy in lithotomy position. All patients undergone proctoscopy before procedure. After procedure a light gauze packing done for 18 to 24 hrs. All patients were given diosmin 500mg(Daflon tab) at a dose of two tablets thrice a day, after meal , for 3 days followed by one tablet thrice a day for 4 to 7 day followed by 1 tab BD for next 15 day.

A standarized questionnaire was completed which included postoperative information about pain, bleeding and mucosal discharge. Two prominent observatory parameters were

postoperative pain and bleeding pain was assessed using verbal response and visual analogue scale at hours 6, and 12 and on days 1, 2, 7 and 14 respectively after operation. The verbal response scales had four options: no pain, mild pain, moderate pain and severe pain. The visual response scale consisted of a 10 cm line with the words “no pain on the left hand and worst pain on the right” .

**Results:**

A total of 64 patients; 48 males and 16 females were included in this study. All patients regardless of age and gender undergone Milligan Morgan Haemorrhoidectomy, and received Diosmin post operatively. Mean age of male patients was 38 years and female patient was 37 years. Out of 48 male patients 42 (87.5%) presented with constipation, 36 (75%)bleeding, 40(83.3%)discharge and 30 (62.5%)with prolapsed. Most of the female patients presented with prolapsed; 14 (87.5%), constipation 13 (81.2%), and 12 (75%) with discharge. 26 (54.1%) males patients had grade III disease, 18 (37.5%) were in late second degree. 12 (75%) female patients out of 16 were in grade III and 3 (18.7%) were in grade IV. Post operative pain and bleeding were the most frequent complications. Tab Daflon 500mg 2x TDs were given. Pain was assessed on verbal pain score. On day first maximum number of patients 32 (50%) complained of mild pain, moderate pain was scored by 18 (28.1%) patients and 4 (6.2%) patients com-

Table 1: Clinical Presentation

Data	Male (n=48)	Female (n=16)
Mean Age:	38	37
Constipation	42	13
Bleeding	36	8
Discharge	40	12
Prolapse	30	14

Table 2: Grades of Heamorrhoids

	Male (n=48)	Female (n=16)
Grade IV	4(8%)	3(18.75%)
Grade III	26(54%)	12(75%)
Grade II (Late)	18(38%)	1(6.25%)

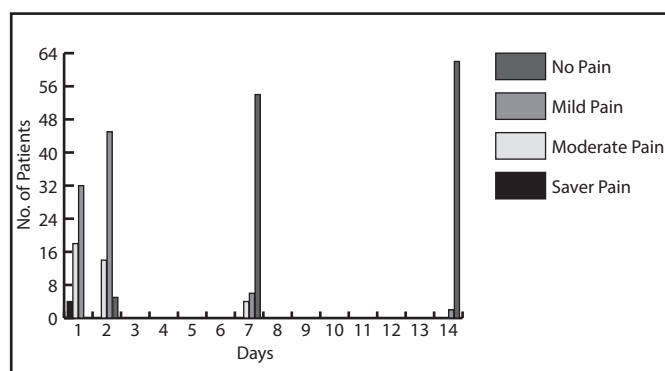


Figure 1: Verbal pain score

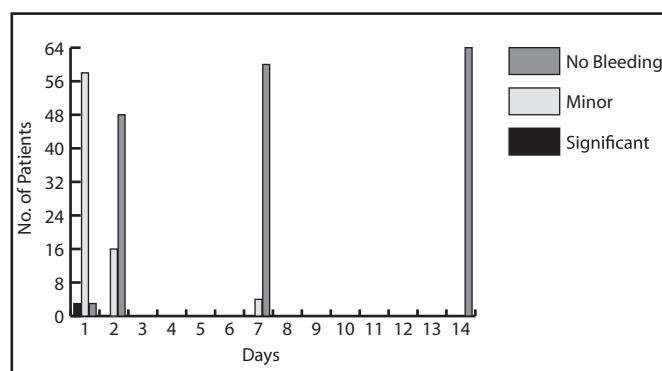


Figure 2: Bleeding

plained of severe pain. On second post operative day 45(70.3%) patients complained mild pain, 14(21.8%) patients moderate pain and none complained of severe pain. Majority of patients 54(84.3%) were pain free on 7th post operative day. At the end of second week only 2(3.1%) patients had mild pain and rest of patients was pain free. Significant post operative bleeding was observed in 3(4.6%) patients only. 58(90.6%) patients had minor bleeding and 3(4.6%) patients complained no bleeding. The frequency of post operative bleeding dropped and only 16(25%) patients complained of minor bleeding. At the end of first week only 4(6.2%) patients complained bleeding and there was no incidence of bleeding at the end of second post operative week.

#### Discussion:

Haemorrhoid is a common disease affecting both sexes. Among several causes constipation is the most attributable cause in pathogenesis of disease.<sup>6</sup>

This is also comparable in our study where 42 male (87 %) patients were constipated, and 13 female out of 16(18.2 %) have the history of difficulty in passing stool. Over last few years several comparative studies were performed to evaluate the available and new procedures to treat 2nd, 3rd and 4th degree haemorrhoids. None of them proved to reduce complications such as pain and bleeding.<sup>7</sup> According to a recent meta-analysis of the chochrane library, conventional haemorrhoidectomy Milligan Morgan is still the most widely used, effective and definite surgical treatment for patients with symptomatic grades

III, IV haemorrhoids. However it is associated with significant post operative complications such as pain bleeding and mucous discharge.<sup>8</sup> In 1971 Daflon consisting of 90% Diosmin and 10% Hesperidin was firstly introduced in France by Bensusade et al<sup>9</sup> for the treatment of haemorrhoids and other capillovenous disease. Diosmin mainly works by increasing the contraction of veins and local lymphatic drainage and decreasing the synthesis of prostaglandins such as PGE2 and thromboxane B2.<sup>10</sup> Side effects of drug include mild gastrointestinal upset and autonomic disturbances in 10% cases.

Diosmin is an effective drug to control post haemorrhoidectomy pain especially during the early post operative period. The post operative use of diosmin (Daflon 500) in combination with short term routine antibiotic and anti inflammatory therapy, reduced both the duration and extent of post operative symptoms. Most of the patients 45(93.7 %) out of 48 has mild pain on day two. These results are comparable with study by La Torre F.<sup>11</sup> Post haemorrhoidectomy pain is the most important uncomfortableness which was also our predominant observatory parameter. Post haemorrhoid pain is difficult to assess, though verbal response is one of the recognized methods, and we therefore used this method of analysis. The diminished post operative pain with diosmin might be related to its capillary resistance and diminished tissue edema and antiinflammatory process. Based on these results we suggest that Diosmin has a clear action against anorectic post operative pain.

Post haemorrhoid bleeding may also affect

the postoperative course following surgery and cause discomfort to the patients. Shaikh AR and Ahmed I have reported bleeding in 5 % of patients who had Milligan Morgan haemorrhoidectomy,<sup>12,13</sup> which is closer to our result. Other studies reported higher frequencies of post operative bleeding.<sup>14</sup> Post operative bleeding is particularly important complication in Haemorrhoids treatment due to its frequency varying between 0.6% and 10%.<sup>15</sup> Several randomized controlled studies evaluated the use of oral Diosmin in the treatment of post Haemorrhoidal bleeding. In these studies, bleeding was relieved earlier than controlled group. In our study minor bleeding was reported on day one and two, and at 2nd week no bleeding episode was reported.

### Conclusion:

We conclude that Diosmin (Daflon 500) leads to rapid cessation of haemorrhoidal bleeding and gives objective relief from post haemorrhoidectomy complications.

### References:

1. Thomas CI, editor. Taber's cyclopedic medical dictionary. 17th ed, new delhi: Jaypee brothers medical Publishers (p) Ltd; 1993:882).
2. Mac Rae HM, McLeod RS. Comparison of hemorrhoidal treatment modalities: a Meta - analysis. Diseases of the colon and Rectum. 1995; 38 (7) : 687 - 694).

3. Davies J , Duffy D, Boy LN ,2 Aghahoseeno A, Alexander D, Leveson S . Botulinum toxin (botox) reduces pain after hemorrhoidectomy: results of a double - blind, randomized study. Dis colon rectum. 2003; 46:1097 - 1102)
4. Pescatori M. closed vs Open hemorrhoidectomy: associated sphincterotomy and post- operative bleeding. Dis colon tectum 2000; 43:1174 - 1175).
5. A
6. Ma-mu-Ti-Jiang A ba-bai-ke-re; world J Gastroenterol 2011 march 21; 17(11): 1448 - 1456).
7. Khan S pawlak SE,Egen-berger JC, Lee CS , Szilagy EJ,Wujs, Margolin MD DA. Surgical treatment of haemorrhoids: prospective, randomized trial comparing closed excisional haemorrhoidectomy and Harmonic scalpel technique of excisional haemorrhoidectomy. Dis colon rectum 2001; 44:845-849).
8. Jayaraman S, Colquhoun PH , malthaner RA. Stapled versus conventional surgery for haemorrhoids cochrane database syst Rev. 2006: CD005393)
9. Bensaude A, Vignle R, Naouri J, The medical treatment of acute haemorrhoidal premenstrual episodes and haemorrhoidal congestion. La vie medicate 1971 - 1972; 52: 39-45).
10. Manthey JA. Biological properties of flavonoids pertaining to inflammation. Micro - circulation 2000;7: 529 - 534).
11. La torre F, Nicolai Ap. Clinical use of miceonizaed purified flavonoid fraction for treatment of symptoms after haemorrhoidectomy: results of a randomized, controlled, clinical trial. dos colon rectum.2004;47:704 - 710).
12. Shaikh AR, Ahmed I. comparative study of 20 , HO I zheimer RG. Hemorrhoidectomy: haemorrhoidectomy with rubber band ligation indicatios and rishs Eur J Med Res 2004; 9: for second and thired degree haemorrhoids 18-36. Specialist pak J med Sci 1995; 12:39 -45).
13. M. Islam Nadeem Ali shah, mumtaz khan, Asadullah et al A comparative study of various Jypes of Haemorrhoidectomy. I 146 - 150 Pak J Med Res 2001: 146 - 150)
14. Ali U, Samad A. Rubber band ligation verses Heamorrhoidectomy. A preliminary report. Tech opens Heamorrhoidectomy; A study of 100 Coloproctol 2002; 6: 105-8).
15. Chik B, law WL, Choi HK. Urinary retension after Heamorrhoidectomy: Impact of Stapled Heamorrhoidectomy. Asian J surg. 2006; 29:233-237).