

Original Research Article

Comparison between intravenous injectable diclofenac and per rectal diclofenac suppository as analgesics in operated per anal and perianal benign pathologies

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ABSTRACT

Background: Per anal and perianal surgeries are one of the bread and butter surgeries in a surgeon's life, and satisfaction of patient matters a lot. Early miraculous recovery has always been patient's expectations hence we decided to study standard IV method of diclofenac as analgesic with diclofenac suppository and compared their effects on patients with the help of pain scale of 0 to 10.

Methods: 200 common per anal surgeries were considered in the study, and were divided in two groups group A post operatively IV diclofenac was given 12 hourly and in group B cases diclofenac suppository 100 mg was started daily twice and the pain score was noted for a week.

Results: Diclofenac suppositories resulted in early pain relief and thus early discharges of these patients. The pain score had decreased to a larger extent by day 3 and was almost negligible by day 5 and a few cases to day 7. The hospital stay reduced as patient could manage suppository at home by themselves. IV site complications like thrombophlebitis leading to pain and fever could be easily avoided.

Conclusions: Thus diclofenac suppositories proved to be an effective way to give a pain free satisfaction compared to intravenous painful analgesics, thus decreased their hospital stay and also it was a patient friendly.

Keywords: Diclofenac suppository, Per anal surgeries, Pain score

INTRODUCTION

Per anal cases are routine surgeries conducted by a general surgeon. The common per anal surgeries include surgeries like and for fissures, lateral sphincterotomy, per anal incision and drainage of submucosal abscess, haemorrhoidectomy, excision of sentinel pile, drainage of crypt abscesses, perianal abscess, fistula in ano.^{1,2} Haemorrhoidectomy being commonest of all, however post op pain management is an absolute challenge for the surgeons as that satisfaction matters the most to the patient.^{1,2}

Objectives

The objective of the present study was to assess the best mode of analgesia for per anal operative procedures between IV analgesic and per rectal analgesic

METHODS

Type of study

A qualitative observational study.

Place of study

The study was conducted at Bharati Vidyapeeth Medical College, Pune.

Period of study

The study was conducted from July 2018 to June 2019.

Selection criteria

200 cases were selected for per anal surgeries at a tertiary care centre and after pre anaesthetic check-up and fitness they were divided into two groups, Group A was IV analgesic considered (injectable diclofenac 75 mg 12 hourly) and Group B was per rectal analgesic suppository (diclofenac suppository 100 mg 12 hourly).

Post op analgesia was recorded based on pain score scale from 0-10 and was noted on day 3, 5 and 7 (for 1 week). The results between the two groups were then compared.

Inclusion criteria

Age group 20-60 years and all routine benign perianal pathologies were included in the study.

Exclusion criteria

Perianal traumas, perianal repairs and malignant pathologies were excluded from the study.

Statistical analysis

Data was analysed using Microsoft excel and presented in number percentage. The statistical analysis used was P value.

Ethical approval

The ethical approval was taken from institutional ethics committee.

RESULTS

Males (51.5%) were more operated than females (48.5%) with perianal pathologies and perianal abscess drainage (72.4%) being common with male group and haemorrhoidectomies (53.7%) commonest in female groups (Table 1).

Table 2 presents that commonest pathologies were haemorrhoids (27%). Least seen were submucosal abscess more in 31-40 years (57.1%). Maximum pathologies were seen in age group of 31-40 years (51.5%). And least pathologies in old age group 51-60 years (3.5%).

Table 1: Sex wise distribution (n=200).

Sex	Fissurectomy	Fistulectomy	Perianal abscess drainage	Submucosal abscess drainage	Lateral sphincterotomy	Haemorrhoidectomy	Total
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)
Male	18 (35.2)	18 (81.8)	21 (72.4)	05 (71.4)	16 (43.2)	25 (46.3)	103 (51.5)
Female	33 (64.7)	04 (18.1)	08 (27.6)	02 (28.6)	21 (56.7)	29 (53.7)	97 (48.5)
Total	51 (25.5)	22 (11)	29 (14.5)	07 (3.5)	37 (18.5)	54 (27)	

Table 2: Age wise distribution (n=200).

Age group (in years)	Fissurectomy	Fistulectomy	Perianal abscess drainage	Submucosal abscess drainage	Lateral sphincterotomy	Haemorrhoidectomy	Total cases in this age group
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)
20-30	13 (24.5)	08 (36.4)	04 (13.8)	01 (14.3)	10 (27.0)	06 (11.1)	32 (16)
31-40	22 (43.1)	14 (63.6)	19 (65.5)	04 (57.1)	18 (48.6)	26 (48.1)	103 (51.5)
41-50	16 (31.4)	00 (0)	05 (17.2)	02 (28.6)	09 (24.3)	16 (29.6)	48 (24)
51-60	00 (0)	00 (0)	01 (3.4)	00 (0)	00 (0)	06 (11.1)	07 (3.5)
Total	51 (25.5)	22 (11)	29 (14.5)	07 (3.5)	37 (18.5)	54 (27)	-

It was observed that the per anal cases on an average responded very well to per rectal suppository Group B however IV analgesic response was almost at par with per rectal response of diclofenac in perianal surgeries as

they needed dressings which were quiet painful to the patients. It was noticed that technically too per rectal use of diclofenac was cheaper easier and did not need any expert help or special care for its insertion thus making it a patient friendly way of analgesia.

Table 3: Pathologies and their average pain score of 1 week.

Average pain score on respective day	Fissurectomy group		Fistulectomy group		Perianal abscess drainage group		Submucosal abscess drainage group		Lateral sphincterotomy group		Haemorrhoidectomy group	
1	7	7	7	8	9	8	5	5	8	7	8	8
2	6	7	7	7	7	6	5	3	5	3	8	7
3	5	4	6	5	6	5	3	0	5	2	6	5
4	4	4	6	4	6	5	2	0	4	2	6	4
5	5	3	5	3	6	5	2	0	3	0	6	4
6	5	2	4	3	6	5	2	0	3	0	5	3
7	2	0	4	3	6	3	2	0	0	0	4	3

Table 4: Comparison of disadvantage of both the routes of analgesia.

Disadvantages	IV route	Per anal route
Assistance (staff)	Yes	No
Cost	More	Less
Special equipment's (intracath, NS, syringes)	Yes	No
Gloves	Yes	Yes
Lubricant (glycerine)	No	Yes
Special care	Yes (prevent air bubble)	No
thrombophlebitis	Yes	No
Hospital stay	Needed	Not needed

DISCUSSION

Per anal and perianal benign pathologies were our target group for this study. The main concept was to come forward with an effective painkiller method for per and perianal benign pathologies, as there are no much studies done in general surgery for the same.

In this study we found out some interesting fact like per and perianal pathologies were commonly seen in males (51.5%) than in females (48.5%), which also matched with the results in Galan and et al study.³

It was also noticed that these benign per and perianal pathologies were common in an age group of 31 to 40 years (51.5%) and the old age group of 51-60 years barely had these benign pathologies (3.5%), this was also seen in Placer Galan and et al article.³

Early discharge seemed to be possible in haemorrhoidectomy, later sphincterotomy and submucosal abscess drainage just as seen in the results of Galan and team.³⁻⁶

It was seen that the most common pathology these people suffered from was haemorrhoids and least was submucosal abscess.¹⁻⁴

The best part was when we scored the average scores in each pathology we noticed that the per anal surgery patients like fissurectomy, incision and drainage of submucosal abscess and haemorrhoids (open and close methods) definitely responded much better to per rectal

suppository group B than group A than perianal surgery like perianal abscess drainage and fistula in ano where incisions were on the skin and needed daily dressings.³⁻⁶

Lateral sphincterotomy and submucosal abscess drainage cases responded excellently and can be even planned discharge on day 2 or 3 with complete pain relief.³⁻⁶ Hence now we have started discharging our lateral sphincterotomy and submucosal abscess drainage cases on rectal diclofenac suppositories 100 mg twice a day after 24 hours of post op care. Patients have been doing excellent by day 3 and coming for follow-ups with smiling faces.

The IV medications need proper and special care, expertise help, a staff to manage, hospital stay and is not user friendly and can cause thrombophlebitis/edema/necrosis if not injected properly whereas the per rectal suppository becomes very convenient, safe and user friendly for patient with only a minimal requirement of gloves and glycerine for lubrication at the anal verge before insertion.⁶⁻⁸

CONCLUSION

Thus, we conclude that the diclofenac suppositories of 100 mg can be used as a cheaper safer and as an effective postoperative analgesic agent in per and perianal cases with excellent results on the pain score scale, and in few per anal cases like haemorrhoidectomy, fissurectomy and lateral sphincterotomy it can reduce hospital stay making it cost effective method.

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