

## Original Research Article

# Use of diclofenac suppositories in pain management in acute fissure in ano in outpatient department care

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### ABSTRACT

**Background:** Per anal diseases and the pain management in such cases have always been a problematic solution for surgeons. There are various pain management methods for per anal cases, however we wanted a cheaper yet effective way and patient friendly method for pain management where no expertise would be required, hence we opted to see results of diclofenac suppositories which were easily available, patient could insert it without anyone's help or assistance and hence need not be hospitalized for any intravenous analgesics.

**Methods:** A study was conducted over 2000 cases over a span of 6 years in a tertiary centre. A control group A of 1000 patients was made where, oral (tablet diclofenac) plus local analgesics (xylocaine gel) were opted for whereas the other group B of 1000 patients was treated with diclofenac suppository 100 mg twice a day with glycerin as lubricant at anal verge. The pain score was noted in both the groups. All acute fissure in ano cases, we included in this study.

**Results:** The pain score of the group B cases was much lower than the group A cases, and also the duration of results acquired was much lesser than group A.

**Conclusions:** Diclofenac suppository 100 mg twice a day proved to be an excellent pain management method for acute fissure in ano cases in outpatient department care.

**Keywords:** Acute fissure in ano, Diclofenac suppository, Per anal pain

### INTRODUCTION

Acute fissure in ano is a very common problem faced by many people in India, though it's a very old problem still the pain relief has always been an unsolved issue. Fissure in ano is defined as a split in anoderm proximally from anal verge upto dentate line but not beyond. It can be acute or chronic.<sup>1</sup> Chronic constipation is the most common cause of acute fissure in ano.<sup>1</sup> Affects both sexes equally, and commonly seen in young adults and middle aged people.

The objectives of the study was to evaluate pain score on pain scale in acute fissure in ano cases on outpatient department basis with diclofenac suppository and to achieve an effective, cheaper and easy method of pain relief in acute fissure in ano cases in an outpatient department.

### METHODS

An observational qualitative study was conducted at Bharati Vidyapeeth Medical College and Research Institute, Pune, Maharashtra from July 2013 to August

2019. A total of 2000 patients were enrolled in the study. The study was approved by institutional ethics committee.

#### **Inclusion criteria**

All acute fissure in ano cases in outpatient department and age 20 to 60 were included in this study.

#### **Exclusion criteria**

All chronic acute fissure in ano cases and all other per anal pathologies were excluded in this study.

All patients coming to our tertiary care centre in the outpatient department were thoroughly examined and diagnosed based on history taking and clinically with digital rectal examination if and when possible. These patients were then divided into 2 groups. Group A consisted of patients being treated with oral diclofenac and xylocaine gel for local anaesthetic. Group B consisted of patients being treated with diclofenac suppositories with glycerine for lubrication at anal verge.

Patient was explained the pain scale and asked to note the pain score daily for next 5 days which patient would come and show in the follow-up visit on 5th day and which was recorded with us by copying the same and maintaining the record.

#### **Statistical analysis**

Data collected was entered and tabulated in Microsoft Excel sheet.

## **RESULTS**

Table 1 shows maximum numbers of patients were seen in younger age group between 20-30 years (42.2%) and least were seen in old age group between 50-60 years (3.95%).

**Table 1: Age wise distribution.**

Age (in years)	Group A (n=1000)	Group B (n=1000)	Total (n=2000)
	N (%)	N (%)	N (%)
<b>20-30</b>	418 (41.8)	426 (42.6)	844 (42.2)
<b>30-40</b>	319 (31.9)	336 (33.6)	655 (32.75)
<b>40-50</b>	201 (20.1)	221 (22.1)	422 (21.1)
<b>50-60</b>	62 (6.2)	17 (1.7)	79 (3.95)

**Table 2: Sex wise distribution.**

Sex	Group A (n=1000)	Group B (n=1000)	Total (n=2000)
	N (%)	N (%)	N (%)
<b>Male</b>	362 (36.2)	389 (38.9)	751 (37.55)
<b>Female</b>	638 (63.8)	611 (61.1)	1249 (62.45)

**Table 3: Pain score in oral diclofenac plus xylocaine gel 1000 cases.**

Pain scale	Day 1	%	Day 2	%	Day 3	%	Day 4	%	Day 5	%
<b>0</b>	-	-	-	-	-	-	-	-	-	-
<b>1</b>	-	-	-	-	-	-	-	-	-	-
<b>2</b>	-	-	-	-	-	-	-	-	-	-
<b>3</b>	-	-	-	-	-	-	-	-	791	79.1
<b>4</b>	-	-	-	-	-	-	-	-	-	-
<b>5</b>	-	-	-	-	-	-	761	76.1	-	-
<b>6</b>	-	-	-	-	753	75.3	-	-	-	-
<b>7</b>	-	-	-	-	-	-	-	-	-	-
<b>8</b>	-	-	748	74.8	-	-	-	-	-	-
<b>9</b>	-	-	-	-	-	-	-	-	-	-
<b>10</b>	923	92.3	-	-	-	-	-	-	-	-

**Table 4: Pain score in diclofenac suppository cases.**

Pain scale	Day 1	%	Day 2	%	Day 3	%	Day 4	%	Day 5	%
<b>0</b>	-	-	-	-	-	-	-	-	-	-
<b>1</b>	-	-	-	-	-	-	-	-	-	-
<b>2</b>	-	-	-	-	-	-	-	-	882	88.2
<b>3</b>	-	-	-	-	828	82.8	-	-	-	-
<b>4</b>	-	-	-	-	-	-	-	-	-	-
<b>5</b>	-	-	-	-	-	-	-	-	-	-
<b>6</b>	-	-	701	70.1%	-	-	-	-	-	-
<b>7</b>	-	-	-	-	-	-	-	-	-	-
<b>8</b>	-	-	-	-	-	-	-	-	-	-

Table 2 shows that female patients were more (62.45%) compared to male (37.55%) with acute fissure in ano.

Table 3 shows that by day 3rd 75.3% people had pain score 6 and by 5th day pain score was 3 in 79.1% people.

Table 4 shows that by day 3 82.8% patients had pain score 3 and by 5th day almost 88.2% patients were pain score 2.

## DISCUSSION

The incidence of acute fissure in ano is 1 in 350 cases. They occur equally commonly in men and women and most often occur in adults aged 15 to 40.<sup>2</sup> however in our study we noticed that females were more affected than men.

According to a study by Gough et al 43.6% patients were cured with local anaesthetic agent xylocaine alone in acute fissure in ano over a period of one month.<sup>3</sup> In our study however it was 75.1% but along with oral diclofenac.

Other modalities like local application of nifedipine has also shown good results but have been proven more effective in healing the fissure with increasing blood supply.<sup>4-7</sup> However for pain relief local xylocaine and sometimes oral with local analgesics were needed.

This drug being easily available across the counter and is safe and easy to use hence widely used in many other perineal cases specifically in gynaecological cases.<sup>8,9</sup>

However there was no study found with diclofenac suppository alone hence our results were nice and showed significantly good results on pain scale with a score of 2 in 88.2% cases. Along with dietary changes, mild laxatives we concentrated on the pain relief of the patient which was most important from patient's point of view and instead of multiple modalities of treatment a simple diclofenac suppository of 100mg twice a day gave fruitful results in just 5 days to an extent of pain score 2 which according to the patient was negligible.

Hence we advocate the practice of these suppositories in acute fissure in ano in an outpatient department on routine basis along with dietary changes, reassurance and mild laxatives to eliminate the commonest cause of constipation.

## CONCLUSION

We conclude that female patients are more prone to acute fissure in ano and also younger age groups are more prone compared to old age. It was also noted that the pain relief was significant in patients with diclofenac

suppository alone compared to combination of oral and local analgesics and thus we can successfully achieve significant pain relief on OPD basis with diclofenac suppositories within a week. Thus an easy cheaper method for pain relief in acute fissure in ano with excellent results could be achieved.

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