

# THE EFFECT OF FENBUFEN ON PAIN CONTROL AND QUALITY OF LIFE IN PATIENTS WITH CHEST PAIN DUE TO SQUAMOUS CELL CARCINOMA OF THE LUNG

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## SUMMARY

Fenbufen, a non steroidal anti-inflammatory drug was investigated in 22-patients with chest pain due to squamous cell carcinoma of the lung requiring narcotic analgesics. The number of Pethidine tablets required was reduced by  $15 \pm 8$  and feeling of well being improved by  $14 \pm 8$  ( $p < 0.05$ ).

## INTRODUCTION

Non steroidal anti-inflammatory drugs are effective in relieving cancer pain.<sup>1</sup> The mechanism postulated for their action is by inhibition of prostaglandin-E<sub>2</sub> (PGE<sub>2</sub>) production. PGE<sub>2</sub> sensitizes the peripheral receptors to the nociceptive effect of substances released during inflammatory response.

NSAIDs are routinely used in the treatment of mild cancer pain, whereas with moderate to severe pain, opiates are considered the drugs of choice.

We investigated the effect of Fenbufen, a non steroidal anti-inflammatory drug in patients with chest pain due to squamous cell carcinoma of the lung who required narcotic analgesics for control of their pain.

The objective was to confirm that the addition of Fenbufen, reduces the necessity for more powerful analgesics and improves quality of life.

## MATERIAL AND METHODS

Patients who had histologically confirmed squamous cell carcinoma of the

lung were eligible for study. Other requirements for inclusion in the study were the age under 80 years, life expectancy over six months and no previous anti-cancer treatment.

After a fully informed consent was obtained, eligible patients were allocated randomly to receive either Fenbufen 900 mg daily or a matched placebo. Treatment period was for four weeks. All patients were provided with adequate escape analgesia, using Pethidine tablets 25 mg, as required.

Each patient was assessed before the study and at weekly intervals for four weeks for:

- a) Severity of pain:
  - 1- no pain
  - 2- mild
  - 3- moderate
  - 4- severe
- b) Number of Pethidine tablets required.
- c) Quality of life (10 cm visual analogue scale) for feeling of well being, mood, level of anxiety, nausea, appetite, level of activity, social activities and abilities to perform housework or job.

Both groups were matched for age, severity of pain, baseline Pethidine requirement and presence of secondaries. A Friedman analysis of variance was performed for each assessment and for each drug group, page's L statistic was then calculated to look for trends.

## RESULTS

Twenty two patients completed the study, ten in Fenbufen and twelve in placebo group. Mean age was 65 (range 50–77 years); nineteen were males and three females.

There was no significant difference in the mean pain score in both the treatment group and placebo (Table-1). The trend for pain reduction was significant in the treatment group falling from 3.1 to 2.1 ( $p < 0.05$ ) whereas in the placebo group, it fell from 2.9 to 2.3.

The number of Pethidine tablets required for pain relief increased from (mean  $8 \pm 2$  to  $10 \pm 6$  in Fenbufen group, whereas during the study, in the placebo group, it increased from  $11 \pm 2$  to  $25 \pm 8$  ( $p < 0.05$ ).

In the quality of life assessment, feeling of well being significantly improved from  $52 \pm 5.8$  to  $46.1 \pm 5.2$  ( $p < 0.05$ ). The scale operating from 0 (excellent) to 100

(terrible). In the placebo group it fell from  $40.8 \pm 5.2$  to  $46.1 \pm 9$ .

Nausea became significantly worse in both groups during the study. No significant difference was noted regarding mood, level of anxiety, social activities, nausea appetite, level of activity and ability to do housework or job.

There were no drop outs from the study due to major side effects. Four patients in the Fenbufen and three in the placebo group had minor gastrointestinal side effects.

## DISCUSSION

Pain is the most distressing symptom and its control is one of the main challenges facing a clinician in patients suffering from cancer. Pain in these patients is due to multiple causes, i.e. nerve compression, bone involvement, paranchymal involvement, pleural involvement etc. In patients with mild pain, non-steroidal anti-inflammatory agents are widely used, whereas in moderate to severe pain, increasing doses of narcotic analgesics are indicated.<sup>2</sup>

Fenbufen is a propionic acid derivative, a compound proved to have sustained anti-inflammatory, analgesic and antipyretic properties in a variety of animal spe-

TABLE-I

|                                       | Group 1<br>Fenbufen |            | Group 2<br>Placebo |           | p Value |
|---------------------------------------|---------------------|------------|--------------------|-----------|---------|
|                                       | Week 0              | Week 4     | Week 0             | Week 4    |         |
|                                       | mean (SEM)          |            | mean (SEM)         |           |         |
| No of Pethidine tabs. required        | 8 (2)               | 10 (6)     | 11 (2)             | 25 (8)    | < 0.05  |
| Doctor's assessment of pain           | 3.1 (0.2)           | 2.1 (0.2)  | 2.9 (0.3)          | 2.3 (0.4) | < 0.05  |
| Quality of life/Feeling of well being | 52 (5.8)            | 46.1 (5.2) | 40.8 (5.2)         | 46.1 (9)  | < 0.05  |

cies.<sup>3</sup> It is more effective analgesic as compared to aspirin and placebo when used in the dose of 900 mg daily.<sup>4</sup> Our study displayed that Fenbufen is a useful analgesic.

The requirement for narcotic analgesia was reduced in the group taking Fenbufen along with better control of pain. It did not improve the quality of life of the patients as a whole, with only one parameter, i.e. feeling of well being significantly improved.

The number of patients studied were too small for us to suggest that NSAID should always be used in patients with chest pain due to lung cancer considering the potential of this drug causing serious gastrointestinal side effects.<sup>5</sup> However, it appears to be useful adjunct to narcotic analgesics even in the treatment of severe chest pain due to lung cancer.

## REFERENCES

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