EFFECTS OF KETOPROFEN ON PAIN RELIEF IN PRIMARY DYSMENORRHOEA

By

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SUMMARY

A two dose schedule was undertaken by the Deptt. of Obstetric and Gynaecology of Goa Medical College on effect of Ketoprofen on pain relief in primary dysmenorrhoea. Since assessment of relief of pain was subjective, patients included were mainly hospital nurses (students), for adequate evaluation. In Group A (Dose schedule of 50 mgm twice a day) it was concluded that significant relief was achieved in only 42.54% of the cycles studied, whereas in Group B, excellent relief was found in 72.34% cases (with dose of 100 mgm twice daily). The side effects were minimal.

Introduction

Use of Kotaprofen as an analgesic and anti-inflammatory agent is by now well established. It is now under trial as an anti-prostaglandin agent in dysmenorrhoea. Almost 50% of all young girls have dysmenorrhoea of some degree. About 10% of these have pain severe enough to indispose them for 1-2 days every month.

Propionic acid derivatives such as Ibuprofen and others have been used in dysmenorrhoea for some time. Chan and Fuchs (1982) found that administration of Ibuprofen in doses of 400 mgm thrice daily from the day of onset of menses produced significant relief. Ketoprofen however has not been so extensively tried.

Materials and Methods

A controlled study was carried out with two dosage schedules of Ketoprofen. Group A patients consisted of 17 patients, and Group B patients were 18 in number. Group A patients were administered Ketoprofen 50 mg. twice daily as long as the pain persisted (which was not more than 4 days). Group B patients were administered 100 mg. of Ketoprofen twice a day on similar schedule.

The subjects selected for this study included mainly student nurses and hospital staff. This gave better compliance and follow-up of the patients. Hence assessment of relief of pain was also more reliable.

All the patients had a haemoglobin level of at least 10 gm% or more and their complete blood counts were normal. Patients having diabetes, hypertension, renal, hepatocellular problems, or complaints suggestive of peptic ulcer were excluded from the study.

The patients were administered ketoprofen at OPD level. One packet containing drug tablets was handed out at a time

From: Goa Medical College, Panaji.
Accepted for publication on 28-1-88.

to the patient. A subjective assessment of the drug was carried out before issuing the next packet. Side-effects if any were noted.

Observations

The schedule of ketoprofen consisted of a low dose Group A (doses of 50 mg. twice daily), and Group B (doses of 100 mg twice daily), in the higher dose schedule. Group A consisted of 17 patients and Group B had 18 patients. In each group after excluding the defaulters, 47 cycles were studied.

Table I and Table II indicate the age-wise distribution of cases. Since our patients were mainly student nurses, 50% in Group B and 47.05% in Group A were in 16-20 age group.

TABLE I
Distribution of Age—Groups
Group—A

Age Group	No. of patients	Percentage
15 yrs	2	11.7
16-20 yrs.	7	41.17
21-25 yrs.	8	47.05

TABLE II
Group—B

Age Group	No. of patients	Percentage
15 yrs.	0	0
16-20 yrs.	9	50
21-25 yrs.	9	50

Assessment of pain relief was done by a questionaire which helped us to place the patient in one of the following categories.

(1) No response or minimal decrease (0-25%).
(2) Fair response with little pain (25-50%).
(3) Considerable relief-mainly discomfort (50-75%).
(4) Complete absence of pain (75-100%).

It was observed that in Group A complete relief was found in only 12.75% of the cycles, whereas in Group B complete relief was found in 36.17% cycles.

Table IV shows the number of side-effects which were altogether 10.65% and were mild.

TABLE III
Degree of Relief of Pain for 47 Cycles in Each Group

Percentage Relief	Group—A		Group—B	
	Number	Percentage	Number	Percentage
0 - 25	19	19.14	4	8.5
25 - 50	18	38.29	9	19.14
50 - 75	14	29.78	17	36.17
75 -100	6	12.76	17	36.17

TABLE IV
Table Showing Incidence of Side-effects

	Group A		Group B	
Complication	No. of cycles	Percentage	No. of cycles	Percentage
Nausea	1	2.23	3	6.39
Skin Rash	1	2.13	2	4.26

In the low dose group side effects were limited to 2 cycles and in the high dose group they were found in 5 patients, (10.65%).

Discussion and Conclusion

There is good evidence that prostaglandin synthetase inhibitors reduce levels of prostaglandins in the endometrium, and in menstrual fluid. The contractility of uterine and cervical musele is clearly reduced by prostaglandin synthetase inhibitors.

Ketoprofen is an extremely powerful anti-inflammatory agent among the propionic acid derivative group. It is 8 times more potent than Indomethacin in inhibiting prostaglandin synthesis.

In our observation, we found that in low dose schedule (50 mg/day) the pain relief was found to be significant in only 42.54% cases (more than 50% relief). But when administered in doses of 100 mg twice daily, more than 50% pain relief was present in 72.34% patients, half of which were completely free of pain.

Side-effects in our series were few, amounting to 4.26% cycles in Group A, and 10.65% of cycles in Group B. The complications were mainly nausea and skin rashes which were mild.

Acknowledgement

Our sincere thanks to the Dean of Goa Medical College, Dr. G. J. S. Abraham for permitting us to undertake this study; and to M/s. P.C.I. Pharmaceuticals Private Limited, Bombay for the generous supply of ketoprofen.

Reference

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