INDOMETHACIN IN PELVIC INFLAMMATORY DISEASES OF WOMEN—A DOUBLE BLIND STUDY

by

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Acute or chronic pain in the abdomen or backache is quite a common complaint in women during the child bearing period. Abdominal pain or backache following a recent delivery, abortion or previous operation, or an attack of acute or chronic infection disable women for a long time.

Indomethacin has been tried on rheumatoid arthritis and in spinal backache. The drug has anti-inflammatory, analgesic and antipyretic properties. It was, therefore, thought fit to evaluate its action on women in the treatment of backache of pelvic origin.

Patients were drawn from the gynaecological in-patients and out-patients departments of L. T. M. G. Hospital, Sion, Bombay. In all 62 cases were selected. The complaint of these patients was acute or chronic pain in the lower abdomen or back associated with either some gynaecological pathology or following a gynaecological operation. Forty-two women were treated in the out-patient department and 20 were admitted in the hospital.

Out of these 62 cases, 22 had acute pelvic infection, 32 had chronic pelvic infection, while the remaining 8 cases were of subacute infection following an operation.

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Received for publication on 1-1-1971.

The anti-inflammatory and analgesic actions of indomethacin were studied in these patients on a double blind basis.

Schedule of Dosage for Indocid

Indomethacin was supplied in 25 mgm., and capsules containing a placebo were identical in appearance. Bottles containing 48 capsules (either indomethacin or placebo) were labelled with a code number. The key to this code was not disclosed until the completion of the whole study, so that the nature of the contents of any particular bottle was unknown to both the investigator and the patient.

Patients were consecutively numbered as they entered the study and were treated with medication contained in the bottles which bore their respective numbers.

Two dosage schedules were employed. Each odd numbered patient got 1 capsule three times a day after food and each even numbered patient got 2 capsules three times a day after food.

In 27 patients antibiotics had to be given in addition to indocid therapy:

Injection consisting of penicillin, streptomycin, and a non-specific protein antigen (inj. omnamycin), 11 patients.

Injection consisting of penicillin and streptomycin (injection discrysticin), 15 patients.

Tetracycline, 1 patient.

All these patients were subjected to relevant investigations like total and dif-

ferential leucocyte counts, total red blood cell count, erythrocyte sedimentation rate and urine examination. The investigations were repeated during treatment and after completion of treatment.

The degree of pain (backache or pain in abdomen), tenderness on examination per vaginam, size of mass or thickening, were assessed on a score, ranging from 0 to 4 as follows:

0 — No pain, no tenderness, no thickening or mass,
1 — Slight pain, slight tenderness with or without slight thickening or mass,
2 — Persistent pain, marked tenderness, definite mass,
3 — Severe persistent pain, marked tenderness, and mass 2″ x 2″ size,
4 — Very severe pain, marked tenderness and mass extending in abdominal cavity.

Triredisol tablets containing B1, B6 and B12 were given to the patients who complained of giddiness. Any other side effect was treated symptomatically.

Ages ranged from 19-51 years. From Table I it is clear that majority of patients had pelvic infection during childbearing period, viz., between 20 to 40 years.

TABLE I
Age Distribution

Age	No. of Patients
Under 20	5
Between 21-30	38
Between 31-40	12
Between 41-50	6
Above 50	1

The patients had a veriety of complaints (Table II) and many a patient had more than one complaint for which she sought medical advice. Backache or pain in the abdomen was the main or the secondary complaint in 50 out of 62 patients Ten patients had fever as main complaint. Leucorrhoea was an associated complaint in half the patients.

TABLE II
Chief Complaints

	Primary	Secondary	Total
Backache	27	29	56
Pain in the abdomen	23	22	45
Leucorrhoea	5	32	37
Fever	10	2	12
Sterility			11
Irregular bleeding P.V.	5	-	5
Induration after operation	7	-	7

Twenty-two patients had acute pelvic infection with or without fever and 8 had subacute infection. Thirty-two cases were of chronic pelvic infection.

The findings on physical examination were as varied as the presenting symptoms (Table III). Clinical findings were mainly mass or thickening in one or both the fornices. In 10 patients though there was no thickening there was definite tenderness which required treatment.

TABLE III
Findings on Physical Examination

Mass in pelvis	23
Thickening in fornices	21
Tenderness in fornices	10
Pelvic induration	7
Indurated abdominal scar ..	1

Out of 62 patients, 26 had history of some kind of operation before starting the treatment. Exploratory laparotomy 7, abdominal or vaginal hysterectomy 6, abdominal sterilisation 8, ventrisuspension and tubal patency testing 2, and caesarean section 3.

Out of these 26 patients, 6 were included in the trial within two months of ope-

ration and two other patients were included in the trial immediately after operation because of a tubo-ovarian mass on exploration.

The rest of the patients had been operated on 6 months to 5 years before their visit.

Results

At the end of the trial when the code was made known to us it was found that 32 patients had received indomethacin and 30 patients had received placebo.

The group receiving indomethacin could be subdivided into: those with acute pelvic inflammation 12, subacute pelvic inflammation 2, and chronic pelvic inflammation 18.

In acute inflammation all 12 patients were given an antibiotic. One patient classified as subacute inflammation was not given any antibiotic as she dropped out due to allergy. In chronic inflammatory group only two patients out of 18 were given an antibiotic.

In placebo group antibiotic was given to 8 out of 10 patients complaining of acute symptoms. Four out of six cases having subacute infection also received an antibiotic. In the chronic cases, 4 out of 10 cases were given an antibiotic.

At the end of completion of treatment response to therapy was evaluated as complete, partial and no relief.

One patient who had an indurated scar, showed good response after treatment with indocid capsules.

Twelve patients out of 32 taking antibiotic and indocid had complete or partial relief (33%).

In placebo group, 10 out of 30 patients getting antibiotic had complete or partial relief (33%).

In indomethacin group doubling the dose did not make any significant difference in relief of pain.

TABLE IV

Result in Indocid and Placebo Groups

	No.	Complete	Partial	Nil	No.	Complete	Partial	Nil
Acute pelvic inflammation. Patients who also received treatment with antibiotics	12	8	2	2	8	3	2	3
Patients treated without antibiotics	-	-	-	-	2	1	-	1
Sub-acute pelvic inflammation. Patients treated with antibiotics	1*	-	-	1	4	2	1	1
Patients treated without antibiotics	-	-	-	-	2	-	2	-
Chronic pelvic inflammation. Patients who also received treatment with antibiotics	2	1	1	-	4	1	1	2
Patients treated without antibiotics.	16	4	7	5	9	4	3	2
	1*	-	-	1	1**	-	-	1

* Discontinued because of giddiness.

** Discontinued because of rash.

Side-effects

Giddiness, headache and feeling of heaviness were the chief side-effects complained of by 21 patients in the whole series. Fourteen patients who were taking indocid complained of side-effects. Out of these, two patients required discontinuation of therapy because of severe giddiness. Seven patients who had received placebo also complained of similar side-effects. One patient who had received placebo had generalized rash which disappeared after discontinuing the capsules.

Thus the side-effects were relatively more frequent in the Indocid group. Doubling the dose did not increase the side-effects.

Discussion

The present study shows that indomethacin has no demonstrably better effect in the relief of pain in women suffering from acute or chronic pelvic inflammation. The result shows that equal percentage of women taking antibiotic got complete or partial relief with or without the drug. Similar double blind study was performed by Jacobs and Hicklin in London and Laud and D'Crus in L. T. M. G. Hospital, Bombay, for low backache. They also came to the conclusion that no significant difference was found between the action of indomethacin or placebo for any of their three criteria, subjective improvement of pain, subjective improvement of movement and objective measurement of lumbar flexion.

However, some other workers like Reubens-Duval and Villiaumey opine that with indomethacin acute cases respond better than chronic ones. This study was not a controlled trial. Joshipura and Gumaste reported good to excellent results (75%) in cases complaining of low backache and sciatica. But this was also not a double blind study.

Dr. Balani from L. T. M. G. Hospital, Sion, has reported good to excellent response to indomethacin in the treatment of phlebitis. This was not a double blind study.

Summary

A double blind controlled study was conducted to compare the therapeutic efficacy of indomethacin with that of placebo in acute and chronic pelvic infections. Thirty-two patients received indomethacin and 30 patients received placebo. The odd number patients received 25 mgs. three times a day and even numbers received 50 mgs. three times a day. The treatment lasted from 2 to 4 weeks. The therapeutic response to indomethacin with antibiotics was not significantly superior to that produced by placebo and antibiotics. Patients on indomethacin complained of some side reactions, two of these had severe giddiness; seven patients on placebo also complained of mild giddiness.

Acknowledgements

We are indebted to Dr. Panse, Dean, L. T. M. G. Hospital for permission to carry out this trial and to M/s. Merck Sharp & Dohme of India Limited for the supply of indomethacin and placebo.

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