

*Effectiveness of Boswellia Commiphora cream for symptomatic relief of joint pain. Research carried out by Dr D. Grant et al.
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Abstract

A study was carried out into the effectiveness of a topical preparation for joint pain (referred to as preparation B). Previous research has suggested this may be helpful in treatment of joint pain. (1)

Introduction.

A topical preparation for the relief of arthritic pain is marketed under the name Boswellia Commiphora Cream. It is produced and marketed by the Skin Shop. Its active ingredients are: Boswellia Carterii and Commiphora Myrrha.

The following ingredients are stabilizers, bulking agents, carriers, pH adjusters and preservatives. They have no physiological function.

Aqua, Caprylic/Capric triglyceride, Glyceryl Stearate, Cetearyl Alcohol, Vitis Vinifera, Glycerine, Stearic Acid, Cetereth-20 Phenoxyethanol, Methyl paraben, Propyl Paraben, Potassium Hydroxide

This study was an attempt to test this preparation against existing treatments. The null hypothesis was proposed that the cream would have no measurable effect on a number of markers, some subjective and some objective.

Recruitment.

There were two groups of respondents.

The first was selected by an advertisement placed in newspapers in Eastbourne on the South Coast and London Evening Standard. This group consisted of about 20 people.

The second group were sourced from a database of people who had previously purchased products relating to arthritis. This was done as it was thought that they would be prepared to try alternative treatments. 63 respondents were recruited in this group.

Methods.

Group A kept detailed records for a month on life before using preparation B and life for a month during which time they used the topical preparation. Their daily results were recorded on a sheet provided for the purpose, giving a detailed and objective record.

For group B a telephone interview was conducted during which they were asked detailed questions about their arthritis over the preceding month. These questions were the same as those asked of those who were sent forms to complete. The answers were recorded. They were then sent Preparation B to trial for a month. At the end of the month they were once again asked in a telephone interview. detailed questions about their arthritis whilst they had been using the cream.

Both groups were sent an exercise sheet and instructed to perform some gentle exercises for their joints.

The same person conducted all interviews and followed a pre-agreed script. Specific instructions were given to avoid leading respondents to a particular response.

Analysis.

The analysis was carried out separately for each group and the results compared. The parameters under test are listed below:

Objective

Number of painkillers taken.

Number of nights with disturbed sleep.

Number of times an activity was prevented by pain.

Subjective

Assessment of pain using an analogue scale, 0 being no pain at all and 10 being the worst pain you have had.

Assessment of stiffness using the same scale.

Each parameter was measured before and during the use of preparation B.

Respondents were also asked to indicate whether they were likely to continue to use the cream.

Statistics were analysed using Decision Analyst 1998 Stats TM package using a test for difference between two independent means.

Results.

These are summarised in the tables below. Respondents were also asked to indicate their current use of medication. Medication taken for pain varied from 'nothing at all' through to Opiate-type analgesics. Respondents also used various herbal or homeopathic remedies in addition to prescription or non-prescription painkillers before using the cream. Respondents were not instructed to reduce their use of existing painkillers taken orally but were advised to only use Preparation B as a topical application. Affected joints ranged from fingers only through to large joints.

The sample size of the first group was 20. The sample size of the second group at 63 was larger. Both groups represented a mixed bag of sufferers-some taking copious quantities of strong painkillers and some taking very little. Respondents from the second group were also using alternative treatments mainly Emu oil or glucosamine which they were told to stop using prior to using Preparation B

Objective markers

Although there was a reduction in the mean score there was no significant difference in sleep disturbance.

There was a slight increase in the mean number of painkillers taken in one group but a decrease in the other. Neither was statistically significant.

Whilst there was a reduction in mean for prevented activities this was not statistically significant.

Subjective markers.

In both groups there was

Statistically significant difference in perceived pain.

Statistically significant difference in perceived stiffness.

In the first group 17 out of 20 (85%) said they would continue to use Preparation B. 52 out of 63 respondents (83%) from the second group said they would continue to use Preparation B.

Testing sleep disturbance	mean	Standard deviation	Probability level
Phone study before	20.4	10.2	86%(not significant)
Phone study After	17.4	12.4	
Postal study before	12	10.85	62.54%(not significant)
Postal study-after	9	10.26	

Testing Activity	mean	Standard deviation	Probability level
Phone study before	36.	59.	55%(not significant)
Phone study After	30	54	
Postal study before	56.5	78.5	61%(not significant)
Postal study after	35.55	72	

Testing Pain killers use	mean	Standard deviation	Probability level
Phone study before	38	55	55%(not significant)
Phone study After	44	58	
Postal study before	53.55	56.43	16%(not significant)
Postal study after	49.85	56.14	

Testing Stiffness	<i>mean</i>	<i>Standard deviation</i>	<i>Probability level</i>
Phone study Before	6.1	1.9	99.99% (significant)
Phone study After	4.6	1.9	
Postal Study before	144	62	95.34%(significant)
Postal Study after	104	61	

Note: In the box above the score for stiffness in the postal study was arrived at by adding up all the recorded scores for each patient for each day-hence the larger number. In the telephone study respondents were asked to assess out of 10 their general level of stiffness.

Testing reported Pain	<i>mean</i>	<i>Standard deviation</i>	<i>Probability level</i>
Phone study before	5.8	2.1	99.99%(Significant)
Phone study After	4.3	2	
Postal study before	149	53.35	97.54%(significant)
Postal study after	109	56.17	

Age	<i>mean</i>	<i>Standard deviation</i>	<i>Range</i>
	70 years	10 years	42
	56 years	15 years	53

Discussion

Our study raises some interesting questions - when patients are treated for 'osteoarthritis' are they being treated for pain or stiffness? Pain is a very personal experience and one person's mild stiffness could be another's severe pain. It is interesting that respondents frequently commented on the cream helping stiffness, especially in the smaller and more accessible joints.

It was expected that we would see painkiller usage decrease with the amount of reported pain dropping. However, painkiller usage continued essentially unchanged. One reason for this may be that habitual behaviour such as painkiller usage may continue despite a reduction in pain felt. It may be that people take painkillers as a matter of routine, as a preventative action, rather than as a response to actual pain experienced. It would probably require a longer study than this with additional controls to see a change in objective markers such as painkiller usage which might reflect a behaviour established over some years.

As regards to painkiller usage there have been several pieces of recent research carried out here and abroad which also call into question habitual painkiller use. A recent review by Bandolier (an independent monthly journal looking at evidence based healthcare) (3) looking at the value of Paracetamol and Ibuprofen in the treatment of arthritis could not reliably conclude whether Paracetamol was better than Ibuprofen or whether either was better than nothing at all for 'arthritic' pain.

A further study by Norwegian researchers published in the British Medical Journal online this week(2), looking at 10,845 patients, concluded that long term use of non-steroidal anti-inflammatory medications, commonly prescribed in the UK for arthritic type pain, were only slightly better than placebo.

These studies combined with the present one add weight to the possibility that habitual preventative painkiller usage may not be in the best interests of patients with osteoarthritic conditions. It may be that doctors and patients should actively look for alternatives with fewer side effects.

A separate observation on this particular trial is that the statistical analysis of both groups produced good correspondence, indicating perhaps that a questionnaire administered over the telephone may be an effective way of conducting such research in future.

Conclusions.

Respondents reported that they experienced less pain and less stiffness whilst using the cream. This was a statistically significant effect.

Objective markers did show a positive trend which reflected the subjective markers used. Whilst this did not reach statistical significance it may be that changes in behaviour such as a reduction in tablet taking or an increase in activity for instance might lag behind subjective markers such as experienced pain. It is common experience that alterations in behaviour take sustained intervention over a prolonged period. A longer period of observation with more respondents might serve to pick up a more definite trend.

No side effects were reported during the trial.

References:

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