



The effects of the application of Dermasport[®] plus Solution Cryo[®] in physiotherapy

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KEYWORDS

Dermasport[®];
Solution Cryo[®];
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Knee;
Ankle;
Knee pain

Summary In France, simultaneous application of Dermasport[®] plus Solution Cryo[®] on damaged or inflamed joints has been recommended for many years to assist with rehabilitation treatments. This protocol required validation.

Objectives: To evaluate the benefits provided by simultaneous application of Dermasport[®] plus Solution Cryo[®] with no other therapeutic intervention, on knee and ankle joints (injured or post-surgery) requiring rehabilitation. Evaluation was to be made with regards to pain, degree of joint mobility and measurement of joint circumference, measured between 0 min (T0) and 30 min (T30) of product application.

Methods: The study was conducted by six independent physiotherapists specialising in sports injuries. The patients, of both sexes, presented with knee pain or ankle pathology of traumatic or post-operative origin, recent or old with inflammation. All patients were treated by simultaneous application of the two products at T0, according to a method of application recommended by the manufacturers (Phytodermie).

Results: Thirty patients were included in the study; 21 men and 9 women with an average age of 32.9 ± 13.9 years, the majority of whom were sports persons (80%) and presenting with a Body Mass Index (BMI) equal to 22.8 ± 2.5 . Of the patients, 18 (60%) were being treated for knee pathology and the 12 others (40%) for ankle pathology.

The comparative assessment between T0 and T30 demonstrated a net reduction in pain (at rest and with active and passive movement) and joint circumference at T30 for both joints. Furthermore, there was an increase in degree of articular mobility in flexion and extension of the knee and in dorsal and plantar flexion of the ankle.

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Finally, the global impressions of both patients and therapists were homogenous (more than 80% for both joints) and in favour of the efficacy of the simultaneous application of these two products.

Localised skin reactions consisted of redness disappearing after application. In two cases they were associated with a temporary sensation of cold.

Conclusion: This study confirmed the positive effects of simultaneous application of Dermasport® plus Solution Cryo® on injured joints. After 30 min of application, we observed an analgesic effect, improved joint mobility and a reduction in oedema.

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Introduction

In physiotherapy, the combination of Dermasport® plus Solution Cryo® products has been recommended for a number of years.

It was said that this combination brought about a reduction in pain intensity, volume of oedema and an increase in the degree of articular range of movement after an application lasting for 30 min.

This study involved the evaluation of the effects of simultaneous application of these two products without any other associated treatment on two joints: the knee and the ankle, injured or post-operative, that required rehabilitation.

Materials and methods

Inclusion of participants

Six physiotherapists orientated to treating sports injuries each included five patients of both sexes, presenting with knee or ankle pathology of traumatic or surgical origin.

Treatments

The simultaneous application of the two products on the injured joints was administered to all patients during a physiotherapy session according to the method of application recommended by the product manufacturers Phytodermie, with no other therapeutic intervention.

Dermasport® is a gel formulated for pain relieving and anti-inflammatory effects. It is composed of six essential oils at an overall concentration of 6%:

Betula alba (birch)
Melaleuca leucadendron (cajeput)
Cinnamomum camphora (camphor)
Syzygium aromaticum (clove)
Eucalyptus globulus (eucalyptus)

Gaultheria procumbens (wintergreen)

Menthol is an additional active ingredient.

Solution Cryo® is a solution that potentiates the effects of Dermasport® and has a similar composition of essential oils at an overall concentration of 6%:

Betula alba (birch)
Melaleuca leucadendron (cajeput)
Anthemis nobilis (Roman chamomile)
Cinnamomum camphora (camphor)
Citrus limonum (lemon)
Syzygium aromaticum (clove)
Eucalyptus globulus (eucalyptus)
Cupressus sempervirens (cypress)
 Menthol is an additional active ingredient.

Observation of patients

The physiotherapists were responsible for gathering the following data at T0 and T30:

1. Evaluation of pain using a visual analogue scale (VAS) at rest, in active and in passive movement.
2. For the knee: Measurement of the degree of articular range of motion in flexion and extension in passive movement as well as in active movement. For the ankle: Measurement of the degree of articular range of motion in plantar and dorsal flexion in passive movement as well as in active movement.
3. Measurement of articular circumference of the superior aspect of the knee and of the peri-malleolar aspect of the ankle.

Once these data were collected at T0, the physiotherapists then were to apply both products over the injured joint according to the following protocol:

“Apply the gel Dermasport® over the joint and then wrap it with a non-woven paper impregnated with the solution of Solution Cryo® diluted in the

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