

AIM AND METHOD

The aim of this preliminary trial was to obtain feedback from patients as to the effectiveness of Opsite Flexifix as a pain-relieving measure. Forty-two patients with varying diagnoses were involved in the trial. The diagnoses included: digital stump, 13 patients (31.0%); fingertip injury, 15 patients (35.7%); nerve injury (including digital nerve repair and neuroma-in-continuity), five patients (11.9%); chronic regional pain syndrome, five patients (11.9%); cross-finger flap, two patients (4.8%); and keloid scar, two patients (4.8%). All patients reported pain or hypersensitivity that persisted beyond the acute or sub-acute postoperative/injury phase (i.e. beyond 6–10 weeks) and that limited or prevented normal use of the hand.

Patients' pain/hypersensitivity levels were assessed using a Visual Analogue Scale (Echternach, 1993). This involved a numeric rating scale using a horizontal line with markings from '0' to '10', as below.

0 1 2 3 4 5 6 7 8 9 10

On the scale, '0' represented no pain while '10' represented the worst pain imaginable. Prior to Opsite application, the patient was asked to rate his or her pain on the linear scale. The chosen number was circled in red. Immediately following application of Opsite, the patient was again asked to rate his or her pain level. The result was then circled in blue.

Application and removal of Opsite Flexifix film

The hand was washed free of any dirt or lotions and dried thoroughly. It was then prepared with a Skin-Prep wipe which left the skin slightly tacky and helped bond the film intimately to the skin. The solution was allowed to dry on the skin before applying the film. This took approximately 1 min. The appropriate length of Opsite Flexifix was cut from the 5-cm width roll. For use on fingers or small areas of the hand, the Opsite was trimmed to the appropriate size on either side of the 'break' seen in the paper layer (this was on the sticky side of the film). This paper layer was then removed and a second plastic layer remained (green grid pattern).

The Opsite was then applied with the plastic layer still in place. The Opsite was gently and evenly stretched onto

the skin under very slight tension. Slightly stretching the film away from its midline assisted in breaking the adhesion between the film and the plastic layer. This ensured easier removal of the plastic layer and provided more effective pain relief. A trial application on non-painful skin occurred before applying Opsite to the painful area. This ensured successful application as several attempts were sometimes required before a smooth, wrinkle-free application was mastered.

When Opsite was used as a dressing, it was usually left in place for up to 14 days. Areas of the body that could be kept dry for extended periods and where the dressing was not used across a joint which was constantly in motion could usually comply with this schedule. In the case of hands, however, mobility was essential and frequent immersion in water desirable. The film therefore usually needed to be replaced every second day. Removal of the film may be painful for some patients. It can be soaked off in warm, soapy water or gently peeled away from the skin. Peeling the film away was done horizontally rather than at a right angle as lifting the film perpendicularly from the skin resulted in more discomfort. Some patients soaked the hand several times a day in warm water as part of a home programme to mobilize stiff interphalangeal joints. To avoid having to reapply the film after each soak, the hand was covered with a loosely fitting surgical or domestic glove which was taped at the wrist.

RESULTS

Of the 42 patients involved in the trial, 73.8% reported a 50% or greater improvement in their pain perception as measured on the Visual Analogue Scale. Specific behavioural changes were noted as a direct result of pain reduction afforded by the contact of Opsite on the skin. For example, the patient with the digital neuroma-in-continuity was able to tolerate the pressure of his child taking him by the hand for the first time in many months. Patients with fingertip injuries or digital stumps who were previously unable to perform their percussion exercises were able to do so with relative ease through the Opsite film. Hypersensitive scar was able to be palpated with little or no discomfort when the scar was covered by Opsite film.

The data were analysed using SPSS (Statistical Package for the Social Sciences) for Windows 9.0. A paired *t*-test was