Shock wave treatment of wounds and scar tissue

A **field report** by **Andreas Heinzinger**, DocOrtho Berlin

At last year's DKOU Convention in Berlin, a Munich-based working group presented the results achieved in the treatment of open leg wounds and scar tissue with focused shock waves (F-SW). Inspired by these findings, the team of doctors at DocOrtho has since performed focused shock wave therapy using the DUOLITH® SD1 »ultra« shock wave system manufactured by STORZ MEDICAL to treat scar tissue problems or complicated skin lesions. Scar management with focused shock waves has been conducted on post-operative scar tissue and on scars associated with crush traumas and ulcers, for example. Complicated skin lesions treated with shock waves range from leg ulcers to post-operative wound healing disorders.

Shock wave treatment was performed at an energy level of 0.2 mJ/mm², using a short stand-off. The number of shocks applied varied according to the size of the wound, using a minimum number of 400 shocks plus 20 shocks per cm² of wound area.

During the procedure, the wound area was covered with a sterile film (Fig. 1). A dozen patients treated in this manner by the DocOrtho team all experienced a significant improvement in their condition. In clinical terms, rigid scar structures decreased and trophic adaptation of the scar tissue to the surrounding tissue occurred. Tissue exhibiting poor or delayed healing showed progressive granulation and eventual healing as a result of shock wave treatment. At the moment, several international working groups investigate the effects of shock waves on wound healing.

Fig. 1: Shock wave treatment of an open wound using the F-SW handpiece

Fig. 2: Radial shock wave application in myofascial and trigger point therapy

Combined shock wave therapy with the DUOLITH® SD1 »ultra«

The doctors in the DocOrtho team have been using shock wave therapy since 2000 and have gathered extensive experience primarily in the management of orthopaedic conditions. In addition to treating the traditional indications for focused shock wave therapy, such as calcific tendinitis of the shoulder or tennis elbow, they also use radial shock waves for myofascial and trigger point therapy (Fig. 2). Excellent long-term results are achieved by combining focused with radial shock waves. This is especially true in the field of fascial mobilization which, today, would be unthinkable without the combined use of focused and radial shock waves. Acute and chronic pain conditions frequently add up to produce changes in fascial contractility, leading to extremely painful movement patterns and/or inevitable protective postures. In such cases, combined focused/radial shock wave therapy is the treatment of choice, as the "mechanical stress" mobilizes the fascial network and contractility is fully restored. ■

➠ **Source:** Dr Andreas Heinzinger
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